

# PRIMA'S OFFICIAL STRATEGY GUIDE

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COVERS  
SIMCITY 3000!

# SIMCITY 3000™ UNLIMITED



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## PRIMA'S OFFICIAL STRATEGY GUIDE

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Finally, thanks to Will Wright for his creation and the loss, over the course of my life, of several hours of sleep; not to mention turning my Mac into my favorite toy. I'm sure I'm not alone.

# DEDICATION

To D, without SimCity and Mighty Jack, where would we be?



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# INTRODUCTION

This guide is intended for *all* players of *SimCity 3000*™. Whether you play the standard version on your PC or Mac, or have just purchased a beautiful new copy of *SimCity 3000 Unlimited*; whether you're a first time Mayor, an experienced 3000 player, or a battle-hardened veteran of previous *SimCity*™ games, there's something here for you.

## WELCOME, YOUR HONOR

Since 1989, millions of ordinary people have tried city management thanks to Will Wright and his educational gaming milestone: *SimCity*. It seemed the most unlikely of game concepts, but its appeal was instantaneous and knew no boundaries; for many nongamers, it's the only game they know.

In 1993, Wright and his company, *Maxis*, took the addictive but unglamorous original concept, exponentially increased its complexity, and harnessed the power of early '90s computing power to give birth to *SimCity 2000*. So glorious, rewarding, and beautiful was it that it seemed impossible to top.

Then, after much work, it was topped by *SimCity 3000*. With even greater complexity, increased citizen interaction, remarkable beauty, and elegantly streamlined controls, the latest and greatest installment has been a chart topper since its release in 1999.

With the new millennium dawning, it seemed time to do even more. In early 2000, *Maxis* announced the development of *SimCity 3000 Unlimited*, an all-new, enhanced, and expanded multinational version of its latest urban simulation masterpiece. It was a momentous opportunity to reward the legions of loyal *SimCity* fans, to put in their hands the features so many had desired, and to give them the tools to make *SimCity 3000* their own.

For us at Prima, the time seemed right to do even more ourselves. We went back to the drawing board to create our most comprehensive *SimCity* guide ever. We totally reconceived and rewrote our guide for the core simulation and introduced a new section for beginners and another for the added needs of *SimCity 3000 Unlimited* players. Nowhere will you find more information about the inner workings of this extraordinary game.

So, slide into the leather chair and wood-paneled office of the urban chief executive. The world is yours to mold into the most efficient and beautiful creation you can conceive. This guide exposes the rules and mechanisms that underlie your city, allowing you to harness their power to your own glorious purpose.

# HOW TO USE THIS GUIDE

This guide is specifically designed and organized for easy use by players of all levels. Consult the outline below (or the index at the back) to find whatever information you need.

In general:

- Beginners: thoroughly study Part 1
- Veterans: consult Parts 2–4
- *Unlimited* owners: read the sections corresponding to your experience level and check out Part 5 for details on *SimCity 3000 Unlimited*.

## PART 1: INTRODUCTION TO CITY CREATION

This first section covers all the essentials of *SimCity 3000* in generalized, clear terms for novice players. We won't get too bogged down in specifics here, opting instead for a comprehensive discussion of everything a neophyte mayor needs to build an immediately successful city. Part 1 chapters include:

### CHAPTER 1: NEW CITY OPTIONS

Understand what your initial settings do.

### CHAPTER 2: BASIC LANDSCAPING

Learn how to use the basic Landscaping Tools to enhance land value and save money.

### CHAPTER 3: BASIC CITY BUILDING

Take a year-by-year walkthrough of the first 25 years of a successful city.

### CHAPTER 4: VITAL INFORMATION

This quick reference chapter provides easy access to all game costs, the years various structures become available, building sizes, lists of buildings with important effects, and other extremely useful factoids.

### CHAPTER 5: CAUSES AND EFFECTS

Learn which actions are linked to which effects.

### CHAPTER 6: SUMMARY OF QUICK TIPS

This summary of tips and tricks helps you get the most out of your city.



## PART 2: PREPARING FOR YOUR CITY

This section is the first stop for experienced players or novices seeking more detail. All chapters in this section concentrate on the *most* fundamental concepts of the simulation. Part 2 chapters include:

### CHAPTER 7: LANDSCAPING

Use the pre-game Terrain Editor more subtly to maximize your city-to-be. This chapter also covers the full spectrum of new Landscaping Tools used in *SimCity 3000 Unlimited*.

### CHAPTER 8: GETTING INFORMATION

Learn how to get information and use the tools at your disposal.

### CHAPTER 9: BUDGETING AND FINANCE

Managing and budgeting money is one of your most basic concerns. This chapter tells you how to make money without hurting your city, and how to spend your precious Simoleons most effectively.

### CHAPTER 10: ZONING

Build zones that grow and prosper without breaking the bank.

### CHAPTER 11: DEMAND

Learn how demand functions so you can ride this erratic beast to civic prosperity.

### CHAPTER 12: DEVELOPMENT

Understand the rules underlying the development of your zones.

## PART 3: STRUCTURES AND EFFECTS

This part delves into the interrelations between structures in *SimCity 3000* and how they impact each other and your city as a whole. All veterans and inquisitive newcomers should internalize these basic concepts and the differences between them. Part 3 chapters include:

### CHAPTER 13: LAND VALUE

Learn how to maximize land value to have a prosperous city.



## **CHAPTER 14: POLLUTION**

Keeping pollution down is a vital component to city success.

## **CHAPTER 15: CRIME**

Keeping your Sims' criminal instincts suppressed is, in part, what you were elected to do. See what crime does to your neighborhoods and the entire city.

## **CHAPTER 16: AURA**

Keep your city happy with an in-depth understanding of aura and what it does for your zones and your city at large.

# **PART 4: DEPARTMENTS AND OTHER MAYORAL CONCERNS**

Diving into the intricacies of mayoral business, this part is for advanced players and budding novices. Here you'll find focused discussions of every department and player in your town and all of your basic management tools. Part 4 chapters include:

## **CHAPTER 17: UTILITIES**

Keep power and water running and garbage off the lawns with this overview.

## **CHAPTER 18: TRANSPORTATION**

How do Sims get from here to there, and why? Find out how to build a city with easy access to all your Sims' needs.

## **CHAPTER 19: PUBLIC SAFETY**

Learn how to construct an effective police and fire system.

## **CHAPTER 20: HEALTH**

It's vital to extend your Sims' life spans with health care. The longer they live, the happier and smarter they'll become.

## **CHAPTER 21: EDUCATION**

Smart Sims are happy Sims. They also bring in clean, nonpolluting industry. Find out how to increase your Sims' intelligence as quickly and cheaply as possible.



## CHAPTER 22: RECREATION

Learn to build and effectively use the places Sims play.

## CHAPTER 23: ORDINANCES

This chapter provides an overview of the list of laws awaiting your executive approval. Learn which are good, which are bad, and which are right for your town.

## CHAPTER 24: NEIGHBORS

Learn how to evaluate and make deals with your neighboring cities. Make the deals for either income or benefit.

## CHAPTER 25: BUSINESS DEALS

How much is a load of extra pollution or crime worth to you? Find out how to judge.

## CHAPTER 26: DISASTERS

When disaster strikes, what do you do? This is the place to find out.

## CHAPTER 27: REWARDS

Learn how to get all the Reward structures and decide which are right for your city.

## CHAPTER 28: LANDMARKS

Put a taste of the real world in your town with these Landmarks. Find out what they do and see all of your choices.

## CHAPTER 29: TIMELINE OF ALL DATE-ACTIVATED EVENTS

Use this timeline for quick reference to plan and save for the next technological or legal development.

## CHAPTER 30: SPECIAL REPORT—HOW TO GET CLEAN INDUSTRY

If your goal is clean industry (and it should be), learn what it gets you and how to bring it on as quickly as possible.



## PART 5: *UNLIMITED* CITY CREATION

For *SimCity 3000 Unlimited* players, this section outlines all of the special features available in the latest version of your favorite game.

### CHAPTER 31: NEW FEATURES OF *SIMCITY 3000 UNLIMITED*

Review in detail what's different from the standard version.

### CHAPTER 32: SCENARIOS

Look here for general tips on playing scenarios, as well as detailed walkthroughs of each of the game's 13 scenarios.

### CHAPTER 33: MAKING YOUR OWN SCENARIO

Let Jenna Chalmers from *Maxis* show you how to build a simple, three-goal scenario with this new creation tool.

### CHAPTER 34: BUILDING ARCHITECT PLUS

The latest, improved version of this building creation tool is easier and more powerful than ever. Now all players can make their own buildings and see them populate their cities.

### CHAPTER 35: THE *SIMCITY* COMMUNITY

Learn how to be part of the worldwide *SimCity* exchange.

## APPENDICES

### APPENDIX A: CHEATS AND SECRETS

Learn how to do things the extremely easy way with these cheats and codes. Even mayors cheat a little, right?

### APPENDIX B: BUILDING DIRECTORY

See what can grow in your city with this pictorial directory of all RCI buildings in the North American, European, and Asian building sets.

# PART 1: INTRODUCTION TO CITY CREATION

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If this is your first visit to *SimCity*, welcome. It may feel like you've come to the party a bit late, but quite the contrary; you've come at the best possible time. With the arrival of *SimCity 3000 Unlimited*, there's never been a more exciting time to get into virtual city building.

Still, it can seem a bit overwhelming to dive right into a game this intricate and sophisticated. If you feel that way, even a little bit, then this section is designed for you. Here we cover the basics, but in a way that gets you to the core of the game without any confusing explanations or arcane statistical analyses.

It's likely that even a moderately inquisitive beginner will read parts of this discussion, with its broad generalizations, and wonder why something works the way it does. We're not concerned with the "why" here. For that you'll need to look in Parts 2–4. Here we are concerned with covering the "what" and "how." We've found that, in *SimCity*, only once you understand the what and the how does the why even make sense.

With that limitation in mind, your review of this part will yield:

- An analysis of New City Options
- A discussion of basic pre-game landscaping
- A "walkthrough," of sorts, for the first decades of a new city, intended to give you a taste of the experience that lies ahead
- A listing of vital stats for informed planning decisions
- An outline of the links between game elements, describing basic causes and effects
- A quick-reference list of tricks to make city building easier and more effective

## NEW CITY OPTIONS

You're about to start a new city, so you need to be organized. First, you must decide which Difficulty Level to use. Sure you've never played *SimCity* before, but you're not some gaming greenhorn, right? So, Easy's not for you? Still, what if you go for Medium and you get in over your head? Will it matter what year you start? How big should your city be?

These are questions that plague beginners in most games, not just *SimCity*. Fortunately, the answers are easy.



## DIFFICULTY LEVELS

It's your first decision and you're not sure what the long-term consequences of your actions are. Difficulty Levels are, directly and indirectly, all about money—how much you have and how much you'll have to spend later.

The first variable is the amount of money in your treasury. This is expressed in the currency of SimNation: Simoleons. The more Simoleons you have, the easier it will be to found your town, and the less likely you are to require a loan.



### TIP

It's very simple. If you're new to *SimCity*, choose Easy.

| Budget                      |                                     | Expenditures           |                      | Income          |  |
|-----------------------------|-------------------------------------|------------------------|----------------------|-----------------|--|
| 2000 Budget<br>January 2000 | Adjust                              | Yr. To Date<br>Expense | Year End<br>Estimate | Meet<br>Advisor |  |
| Ordinances                  | <input checked="" type="checkbox"/> | \$0                    | \$0                  |                 |  |
| Neighbor Deals              | <input checked="" type="checkbox"/> | \$0                    | \$0                  |                 |  |
| Loans                       | <input checked="" type="checkbox"/> | \$0                    | \$0                  |                 |  |
| Education                   | <input type="checkbox"/>            | \$0                    | \$0                  |                 |  |
| Public Health               | <input type="checkbox"/>            | \$0                    | \$0                  |                 |  |
| Fire                        | <input type="checkbox"/>            | \$0                    | \$0                  |                 |  |
| Roads                       | <input type="checkbox"/>            | \$0                    | \$0                  |                 |  |
| Police                      | <input type="checkbox"/>            | \$0                    | \$0                  |                 |  |
| Mass Transit                | <input type="checkbox"/>            | \$0                    | \$0                  |                 |  |
| Year to Date Income         |                                     | \$0                    | \$0                  |                 |  |
| Estimated Income            |                                     | \$0                    | \$0                  |                 |  |
| Year to Date Expense        |                                     | \$0                    | \$0                  |                 |  |
| Estimated Expense           |                                     | \$0                    | \$0                  |                 |  |
| Year to Date Cash Flow      |                                     | \$0                    | \$0                  |                 |  |
| Estimated Cash Flow         |                                     | \$0                    | \$0                  |                 |  |
| Current Funds               |                                     | \$50,000               | \$50,000             |                 |  |
| End of Year Funds           |                                     | \$50,000               | \$50,000             |                 |  |

Fig. 1-1. Keeping your budget out of the red is one of your most fundamental goals. The lower the Difficulty Rating, the easier this will be to achieve.

The second variable is subtler: the smoothness of the terrain. The more varied the terrain, the more expensive it will be to build your city.

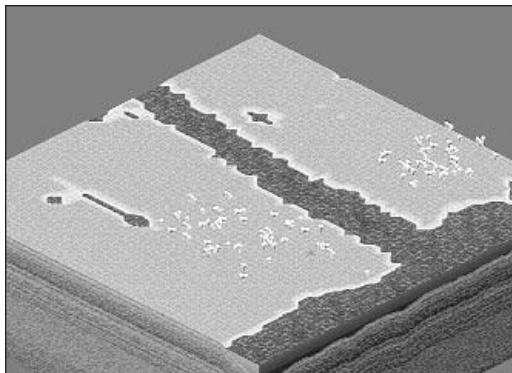


Fig. 1-2. Compare the glass-smooth Easy terrain...

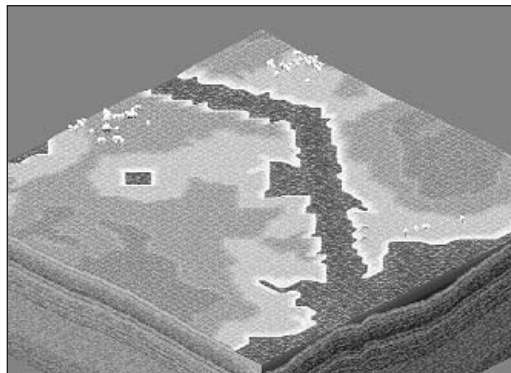


Fig. 1-3. ...with the very rough Hard terrain.

## EASY

- Starting Funds: \$50,000
- Terrain: Smooth

At Easy level, you're given every advantage. You start with a gaudy amount in your treasury and a terrain that, but for a few small plateaus, is smooth as glass. Smooth terrain means that you won't incur added landscaping expenses when you place each building or zone.

## MEDIUM

- Starting Funds: \$20,000
- Terrain: Varied

In Medium, you are given far less cash in the beginning. It's probably enough to get you through the first few years, but you'll avoid debt only if you can create a budget surplus quickly.

The landscape also makes things more difficult. You still have clearly defined hills and plateaus, but you'll notice that even long stretches of the "same" elevation have variances: tiles that are just higher or just lower than the ones around them. This means more cost to zone and build. When you put down a zone, you'll want the entire zone to be leveled to the same elevation: doing this costs Simoleons. Also, when you plant buildings, the expense of auto-smoothing the terrain is added to the cost of the building.

## HARD

- Starting Funds: \$10,000 (Borrowed)
- Terrain: Rough

At the top Difficulty Level, you already have a challenge. Not only do you have funds enough for only a very small starting city, but you have a nice big debt payment appearing regularly in your budget for the first five years. Debt is nothing to be afraid of (a smart, experienced mayor can easily use it to his/her advantage) but you probably don't want to worry about it if you're just starting out.

The terrain is extremely rough, making it almost impossible to put down even a small zone without expensive landscaping. The terrain makes the city look more interesting, but creates substantial additional expenses for almost everything you do.



# START DATE

The Start Date is very important in terms of what technology and Ordinances are available to you. Starting a city in 1900, for example, limits you to the only high-polluting Power Plants: Coal and Oil. A city that starts in 2000, on the other hand, has access to all but the most advanced power technology.

Other factors affected by Start Date include Disasters, Business Deals, and the availability of clean industry.



## CROSS REFERENCE

See Chapter 29 for a timeline of all developments in *SimCity 3000*.

# CITY SIZE

City Size dictates the number of tiles in your town.

- Miniature:  $64 \times 64$
- Small:  $128 \times 128$
- Medium:  $192 \times 192$
- Large:  $256 \times 256$

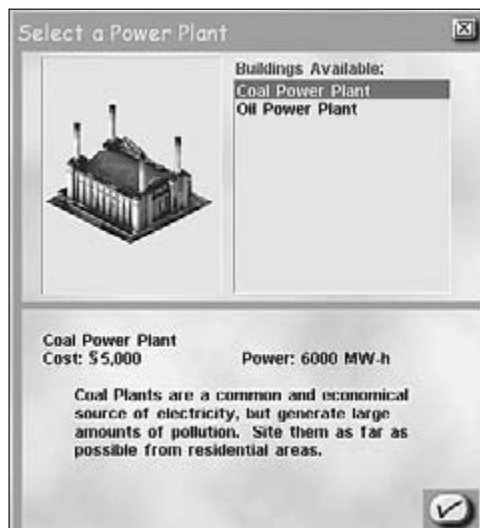


Fig. 1-4. If you start in 1900, your Power Plant options are intensely polluting.

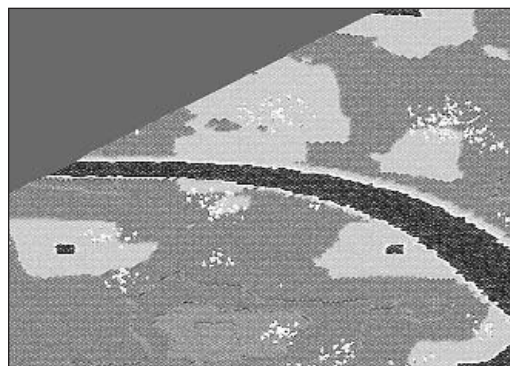


Fig. 1-5. A Large city is a vast landscape of  $256 \times 256$  tiles.



# BASIC LANDSCAPING

Any experienced *SimCity* mayor will tell you that the key to a successful city is what you do in the pre-game landscaping stage. How you lay the ground for your city influences so many things that it's difficult to overstate the importance of smart terrain manipulation.

## INITIAL TERRAIN

When you begin a new game, the first thing you'll see is the raw, randomly generated terrain. It will usually, by default, include an ocean, a river, and a lake or two. Beyond that, well, it's pretty random.



### TIP

Use the Hotkeys to zoom and rotate for different views of your map.

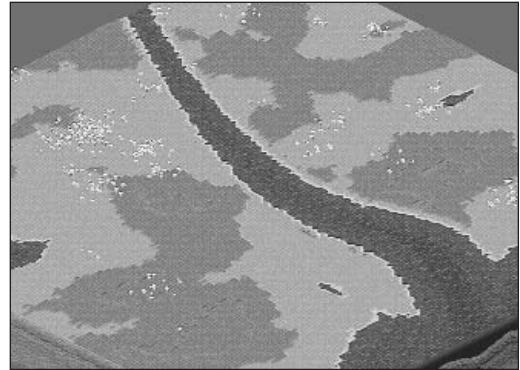


Fig. 2-1. What the heavens hath wrought: this is your default terrain; you can accept it or make changes.

You can take what the simulation gives you, or you can tinker with it a bit, tweaking to get it just right. Of course, knowing what's just right is a matter of considerable experience and strategy. For now, however, let yourself be guided by the tips in this chapter. As you become more seasoned, you may develop strategies of your own that either go beyond or completely reject this approach; that's a mayor's prerogative.

## PICK FEATURES

The first landscape element you can change is the combination of land features: oceans, rivers, mountains, and lakes.



Fig. 2-2. The Pick Features Tool



## OCEANS

You can have oceans on one side, all four sides, or none at all. Again, it's your choice.

You will probably want at least one ocean. Oceans enable the use of Desalinization Plants and provide the ideal spots for Seaports. You can, of course, put Seaports on navigable rivers (provided they're wide enough) but it's often more difficult to manage.

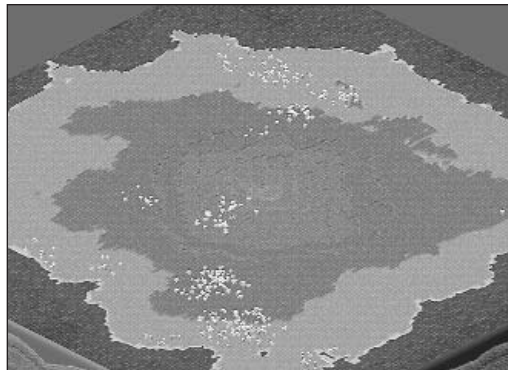


Fig. 2-3. Oceans can be on one side or on all four as illustrated by this island city.



### NOTE

In *SimCity 3000*, a body of water is "navigable" if it leads off the map to another city. A lake or added Surface Water will not accommodate a Seaport no matter how much you wish for it.

Having an ocean on a side means that you cannot make Power or Water Deals with the neighbor on that side. You can, however, make Garbage Deals, and doing so through a Seaport is actually less expensive than via an overland connection.

There's probably no harm in eliminating oceans altogether, but they do provide some interesting aesthetic and strategic building opportunities.

On the other hand, having oceans on all sides gives you an island city. This can be an extremely stimulating challenge, as long as you know what you're facing: you won't be able to make deals for Power or Water at *all*. On the upside, one Seaport serves all four neighbors.



## RIVERS

You can opt for no rivers or a river running either north-south or east-west.

Rivers are excellent sources for fresh water, because their long shorelines permit a massive number of Pumping Stations.

They can also accommodate a Seaport if you have no ocean shorelines available.

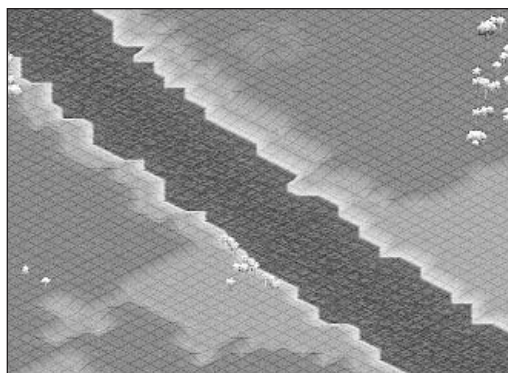


Fig. 2-4. A river is an inexpensive and substantial source of water for your city.



## MOUNTAINS

Instead of a river, you can have a mountain in the middle of your city. This arrangement has tremendous strategic potential but you'll have to smooth it out at great expense to make it hospitable to building.



### CROSS REFERENCE

*SimCity 3000 Unlimited* owners can groom hills for free in this stage with the **Terrain Tools**. See Chapter 7.

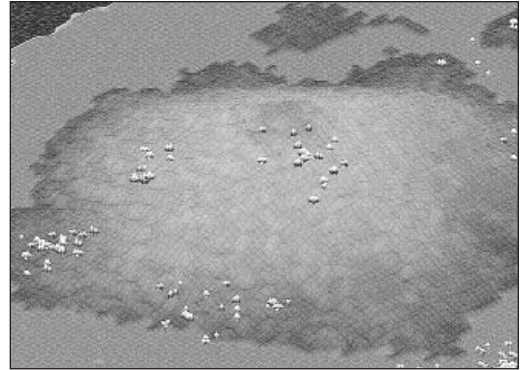


Fig. 2-5. Mountains enhance land value but create troublesome in-game landscaping problems.

Mountains are advantageous because zoned buildings at above-average elevations receive a boost to land value.

Having a mountain in the center of your city plays into some very advanced strategies having to do with a phenomenon called the “City Center Effect.”



### CROSS REFERENCE

The somewhat esoteric implications of the City Center Effect are covered in Chapter 13.



## LAKES

Instead of rivers or hills, you can have a lake in the center of your city. Lakes, like rivers, provide copious fresh water shorelines for Pumping Stations.

Note that if you choose a lake and *no oceans or rivers* you will be totally unable to build a Seaport or to receive its substantial benefits.

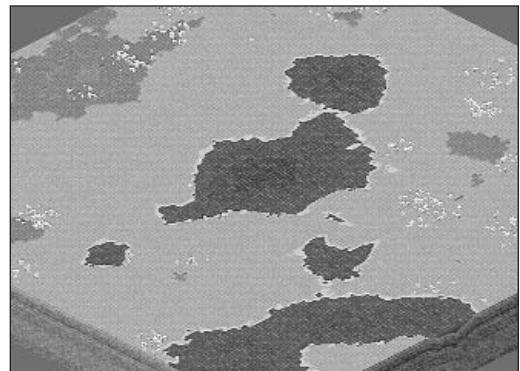


Fig. 2-6. A lake has all the advantages of a river, except that you can't build a Seaport on it.



## FLAT LAND

Finally, you can choose to have nothing at all in the center of your city. The only disadvantage of this is the scarcity of naturally occurring water, seriously limiting your water supply options. If you can't create enough water with the Water Parameter Slider (see below), you'll have to undertake the very expensive creation of Surface Water or import water from a neighbor.

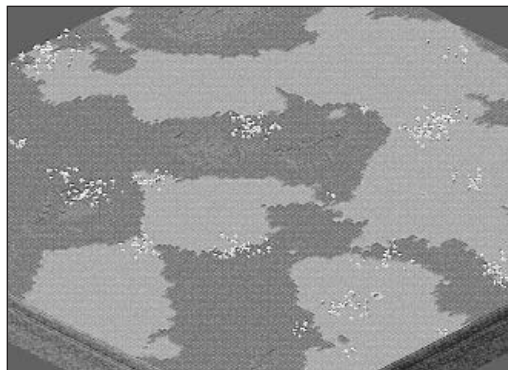


Fig. 2-7. The minimalist's choice: featureless land has benefits, but it probably has more downsides.

## PARAMETER SLIDERS

Once you've chosen the basic features, you can fine tune three very important elements: hills, water, and trees.

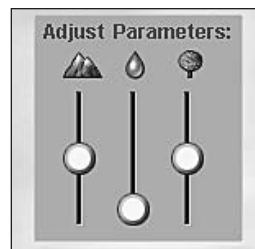


Fig. 2-8. The Parameter Sliders

## HILLS

At its highest point, the Hills Slider creates plateaus on the landscape. These are very useful for above-average-height development. Zoned buildings on such land are automatically enhanced in land value. These hills may, however, need a little smoothing to be useful.

At its lowest point, the slider creates minimally flat land.

The ruggedness of the terrain is dictated by the skill level you choose. Putting the slider at minimum on a Hard city will still leave several large hills. Putting it to minimum on an Easy city yields a totally flat city. Maximum amounts are likewise affected.

Setting hills to maximum can be problematic and can set you up for massive landscaping expenses down the road. The Land Value Effect of hills is, frankly, often not dramatic enough to justify the expense of grooming the land into workable shape. Keep it in the middle or boost it slightly, depending on your skill level. You want a few medium to large, basically flat plateaus. No more, no less.

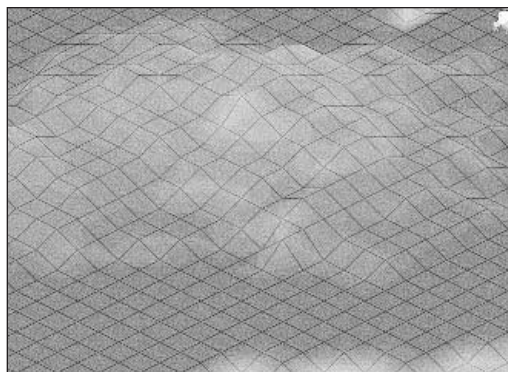


Fig. 2-9. Hills created with the slider can be more useful than those created with the Pick Features Tool.



## WATER SLIDER

Water is the king of all land value enhancers. You want as much of it as possible.

At maximum, the Water Slider adds as much water as skill level allows. On Easy, this can be a few small ponds. On Hard, it can be a veritable river delta with more water than land.

At minimum, you'll have anything from no water at all to a couple of tiny puddles.

Give yourself as much inland water as possible. With that said, you never want a map that has more water than land. Find the median that works for you, but err on the side of more water; it's cheaper to fill in than to create later.

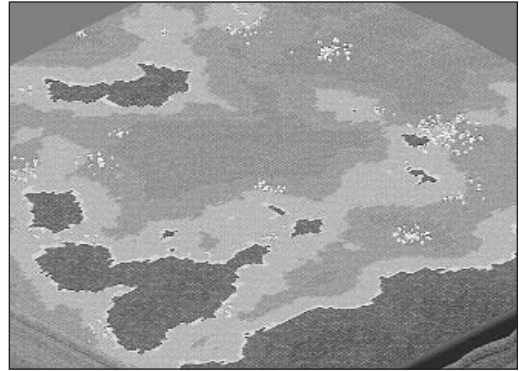


Fig. 2-10. Water, water, everywhere, that's what you want.

## TREES

Trees don't affect land value, but they do reduce local pollution levels.

It costs money to demolish trees (the cost of which is automatically added to a building when you place it over a tree), but the amount is minimal.

For the minuscule amount of money at issue, it's best to opt for more trees rather than fewer. If you must demolish them, so be it. It's nice, however, to know that they're there to suck up smog and just make your city look nicer.

Bottom line: push the Tree Slider up to maximum and let the wood chips fall where they may.

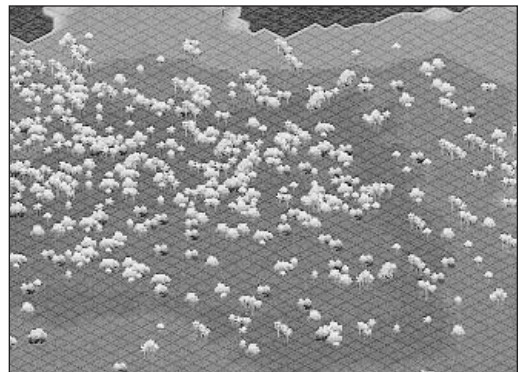


Fig. 2-11. Trees absorb pollution, look nice, and are cheap to demolish. Go for it, Johnny Appleseed!



## RE-GENERATING AND ACCEPTING TERRAIN

When you're done with *both* Features and Parameters, press Re-Generate Terrain to enact your changes. Remember that each time you press this button, the *entire map* is regenerated based on the selections on the Terrain Editor.

When you've got a map you like, press Accept This Terrain. Don't press this game-starting button before you're totally content with the landscape because once you press it, you're stuck with what you have.

## SIMCITY 3000 UNLIMITED OWNERS

You have an enhanced pre-game Terrain Editor with six additional fine-tuning landscape controls: the same six that appear in the game.

The difference is that, here, they cost nothing to use. It takes considerable foresight and city planning to use these tools to your eventual advantage, but their existence should encourage you to spend more time in the Terrain Editor, meticulously grooming the ground that will soon sit beneath your city's feet.

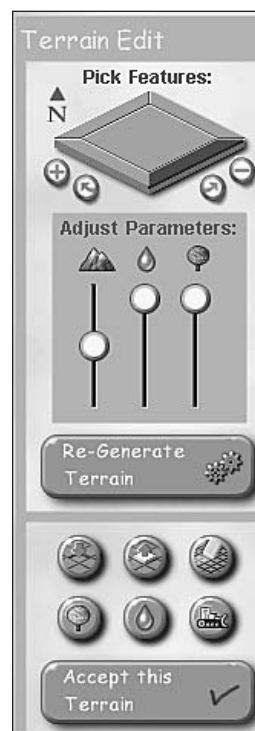


Fig. 2-12. The Terrain Editor in *SimCity 3000 Unlimited*

# BASIC CITY BUILDING

The best way to acquire a basic understanding of how *SimCity 3000* works is to watch a city being built and learn as it grows.

This section provides a walkthrough of a basic city starting in 1900 through its 25th birthday. Digest this chapter and you'll become acquainted with every basic concept you'll need to build your own first city.

There is considerable repetition and generalization in this chapter for the sake of clarity and simplicity. Experienced *SimCity* veterans will undoubtedly be frustrated with this approach. For them and any hyper-inquisitive beginners, I recommend you go to Parts 2–4 instead. In cases of drastic simplification, a cross reference is provided to the more advanced chapters so interested readers can seek more if they choose.

With that caveat, let's build a city.



## NOTE

This is not meant to be an interactive tutorial that you need to follow. Instead, it is intended to teach by example with pictures and general explanations of fundamental concepts. You don't need to be in front of your computer to follow along.

## NEW CITY

Your first step is to set up your city options in the New City Options window. The details of this were discussed at length in Chapter 1, so we won't dwell on them here.

First, give your city and yourself a name. Next, decide on your Difficulty Level and Start Date.

Let's keep things simple and start at Easy. We'll begin in 1900 because, frankly, there are fewer choices to make; this leaves fewer variables up to personal preference. A small city will be enough for our purposes.

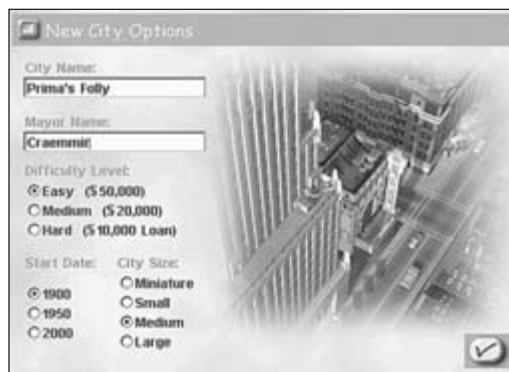


Fig. 3-1. The New City Options menu as it appears in *SimCity 3000* standard edition



In your manual, you've read about toggling Disasters and using the Auto Budget. When you begin to play on your own, turn Disasters *off* until you've gotten the hang of the basic game. For instructional purposes, turn Disasters on. As for Auto Budget, *all beginners should turn off Auto Budget!* Seeing your budget pop up every year keeps you connected with the passage of time and the flow of your city's funds.



If you're playing *SimCity 3000 Unlimited*, you'll also have the option to select your landscape, tree type, and Building Set. These choices are up to you. They can, of course, be changed any time through the in-game City Options menu.

With those decisions out of the way, move on to the landscaping phase.



Fig. 3-2. The expanded version in *SimCity 3000 Unlimited*

## TERRAIN EDIT

Pre-game landscaping was already discussed in Chapter 1 and that coverage should suffice for now. However, make a few changes before proceeding.



### CROSS REFERENCE

An overview of the Terrain Editor appears in Chapter 2. Exhaustive detail on it can be found in Chapter 7.

The randomly generated map looks pretty promising.

Keep the seacoast and the river down the center. Both provide places for Seaports that, in turn, will help Industrial and Commercial populations grow and allow export or import of garbage to a neighbor over the sea.

More water, hills, and trees on your map enhance land value and reduce pollution (trees only).

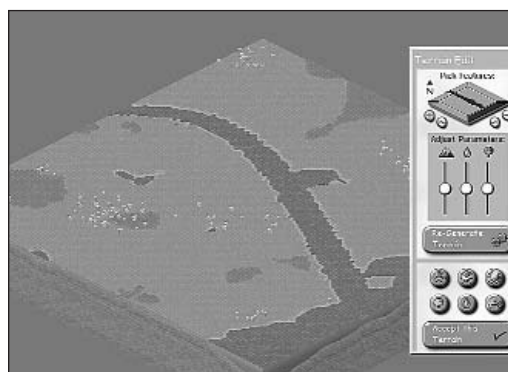


Fig. 3-3. The hand you've been dealt

Push the sliders up to maximum and press Re-Generate Terrain. If you don't like what you get, press the button again.

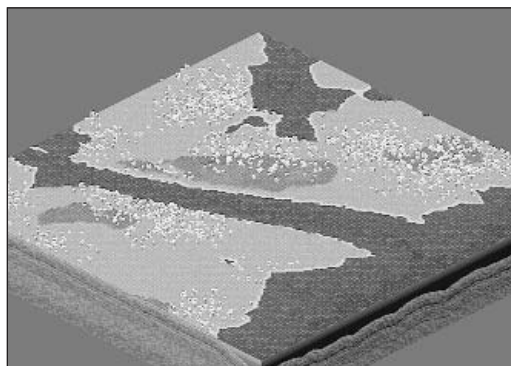


Fig. 3-4. This one seems to have everything necessary.



## CROSS REFERENCE

Players of *SimCity 3000 Unlimited* have several additional tools in the Terrain Editor. These provide even more precise editing features and open more elaborate landscaping strategies. For more on using these tools, see Chapter 7.

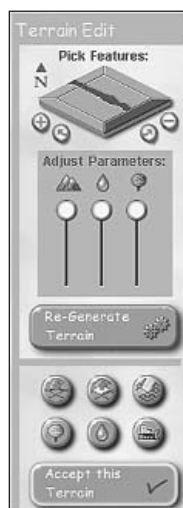


Fig. 3-5. The Terrain Editor has been significantly enhanced in *SimCity 3000 Unlimited*.

# PRE-GAME SET UP

## SURVEYING CITY PLACEMENT

Once you press Accept This Terrain, it's time to look over the map and decide where to start. The game is automatically paused when you begin; keep it that way until you've set up your basic city.

Begin in the western corner of the map. Always try to start in corners. Why?



## POLLUTION BENEFITS OF CORNER BUILDING

Putting a polluting Power Plant in the corner of a map means that three-quarters of its cloud of pollution will not appear on your city map. This lowers the impact of these awful smoke-belchers. The plant is, of course, still producing its full load of pollution, but it's not counted in your city's pollution levels.



### CROSS REFERENCE

Read all about pollution in Chapter 14.

You can use this method with Landfills and Industrial zones too.

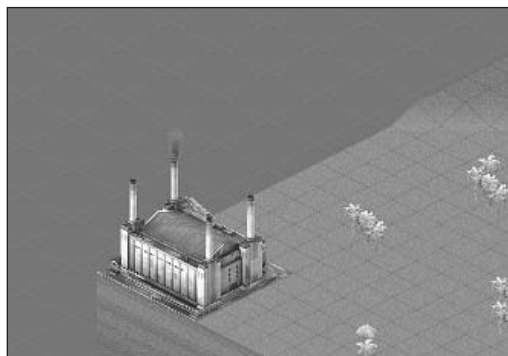


Fig. 3-6. Put your Power Plants in corners to reduce their Pollution Effect.

## NEIGHBOR RELATIONS AND CORNER BUILDING

Every city has a neighbor city on each of its four sides. By building in a corner, you can build Roads, Rails, Power Lines, and Water Pipes to *two* neighbors without having to pay for expensive map-wide runs of connections. The benefits of multiple Neighbor Connections are considerable.

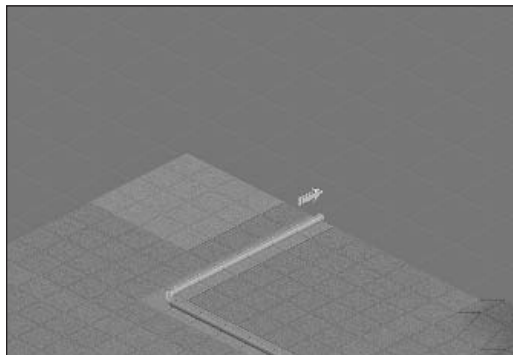


Fig. 3-8. Don't forget to set up Water Pipe connections as well as Power Lines and Roads.



Fig. 3-7. Connect Roads, power, and water to one neighbor before you even start the simulation.



Only connect with one neighbor at this point. Later, you can establish the second connection with no undue expense. For various reasons, check the Neighbor window and select the neighbor with the larger population.

**CROSS REFERENCE**  
For more on neighbors, see Chapter 24.



Fig. 3-9. Connect with the larger of your neighbors.

## POWER PLANT SELECTION

In 1900, you have a choice between only two Power Plants: Oil and Coal. The choice is an important one.

The Coal Power Plant is the cheapest power producer. It generates a moderate amount of electricity and an overpowering amount of pollution.

**CROSS REFERENCE**  
Power Plants are discussed in Chapter 17.

Oil Power Plants are more expensive. They, however, generate more power and produce less pollution than the Coal Power Plant.

Money is the primary concern in this phase. Therefore, choose the Coal Plant and just accept the pollution as a fact of life for now.

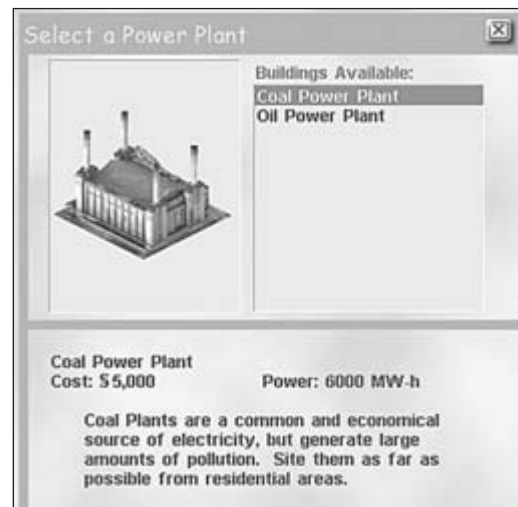


Fig. 3-10. Go with the cheaper Coal Plant and put it in the corner.





## LANDFILL PLACEMENT

Your Landfill is one of the most undesirable inhabitants of your city; it should be placed either quite far out of town (though not too far) or right next to your Power Plant.

A starting Landfill needs to be at least  $2 \times 2$  tiles in size, and within 5 tiles of a Road. Don't build anything important near this Road; you may want to shut down the Landfill later and that means demolishing the Road, but cross that bridge when you come to it.



Fig. 3-11. To function, a Landfill must be at least  $2 \times 2$  tiles and be near a Road.



### CROSS REFERENCE

Landfills are discussed in Chapters 10 and 17.

## WATER NETWORK PLACEMENT

The next priority is creating a water supply network. Choose this corner because of its easy access to the adjacent river. Place four Pumping Stations right on the shoreline (they operate at a reduced level if they're more than 1 tile away).



### TIP

Build a few more Pumping Stations than you need right now. They're not too expensive and you can sell your water to a neighbor for extra income.

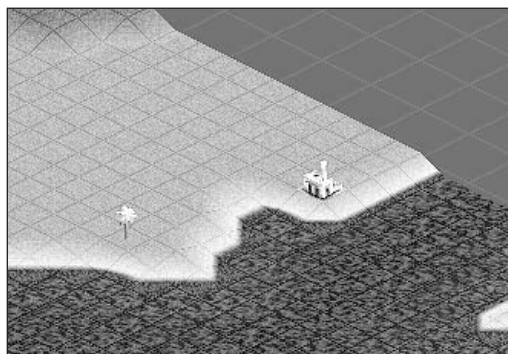


Fig. 3-12. The water system begins at the water's edge.

Run pipes from these Pumping Stations later, however.



### CROSS REFERENCE

Water, power, and garbage networks are discussed in Chapter 17.

To get the Pumping Stations to operate, connect them to Power Lines from the Power Plant.

## POWER LINE MECHANICS

Power Lines don't need to touch either the source of the power (in this case, the plant) or its destination. Power radiates in a 5-tile radius from any powered structure. Anything within this radius will therefore be powered by proximity.

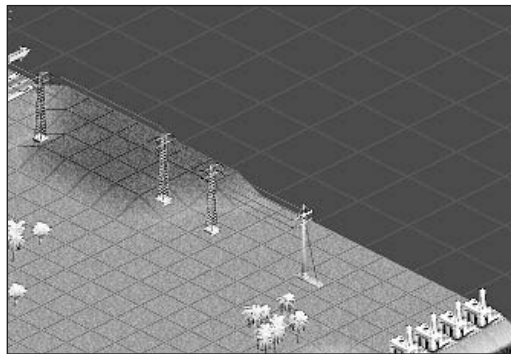


Fig. 3-13. These Pumping Stations will be juiced by this Power Line because they're within the line's 5-tile radius.

## ROADS

Now that the utility infrastructure is set up, get the initial transportation system operating.

Initially set up more transportation than needed. It helps to envision where you'll be placing your Industrial zones and lay out Roads accordingly. It takes considerable experience to anticipate future transportation needs and build zones appropriate to various zone types.

Other priorities should be smooth, redundant transportation and adapting to the landscape. The sense of this layout will become clear as you put in the zones.

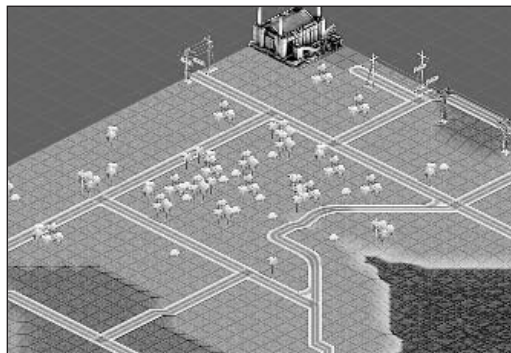


Fig. 3-14. This initial Road structure may look a bit excessive and complicated, but it's built with three things in mind: providing optimal zone layout, maintaining redundant Road connections, and adapting to the oddities of the terrain.

## YOUR FIRST ZONES

Generally speaking, you should have as many Residential zones as you have Commercial and Industrial zones combined. In other words:

**Residential zones = Industrial zones + Commercial zones**



### NOTE

You may notice that, throughout this book, we refer to density as low, medium, or high. When you are actually setting up zones, however, they are referred to as light, medium, and dense. Low, medium, and high are used for greater accuracy but, for most purposes, the terms are interchangeable.

**CROSS REFERENCE**

Zone balancing is a complex topic covered in Chapter 10.

The proportion of Industrial to Commercial zones depends on the size of your city. From the beginning of the city until population reaches 233,000, you should have more Industrial than Commercial zones. After 233,000, there should be more Commercial zones than Industrial. At this initial phase, you only need a few tiles of Commercial. This will increase as you inch closer to 233,000.

Pollution management dictates that Residential and Commercial zones be placed far away from Industrial zones, Power Plants, and Landfills. Still, they can't be too far away or your Residential Sims won't be able to get to work in the Industrial zones.

**TIP**

**It bears repeating that your Residential zones cannot be excessively far away from your Industrial zones. Sims will only travel so far from their starting points to**

**get to their destinations. As your traffic and mass transit networks become more clogged, the distance Sims will travel gets shorter and shorter. Combine moderate distances between zone types with good transit policy to ensure that your Sims can get where they're going.**

Note that the Residential zone is partially on a hill. The raised terrain slightly enhances the land value of the zones here. In general, zones at higher-than-average elevation receive a boost in land value. There's no certain way to know



Fig. 3-15. Your first Industrial zones will grow near the Power Plant. Leave room for Landfill expansion, however.

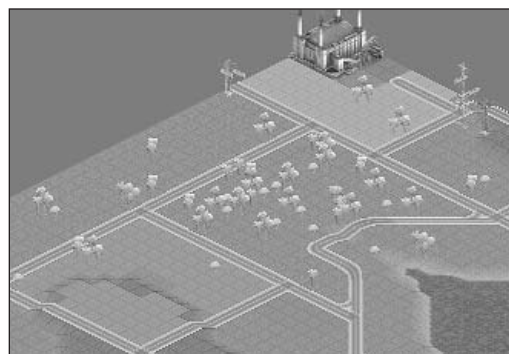


Fig. 3-16. These Residential and Commercial zones are a fair distance away from the dirty Industrial zones. Notice also the zone proportions.

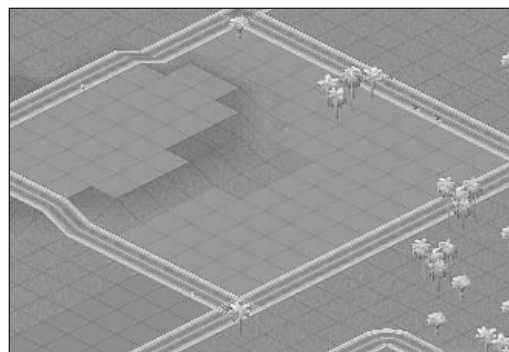


Fig. 3-17. Higher-than-average elevation increases land value.

average elevation, so you have to let your eyes guide you; on this map, it's clear that any hill is above average in elevation.

Lastly, run necessary Power Lines to outlying Residential and Commercial zones. If a building or zone is placed over these lines later, they will simply disappear, their function taken over by the structure in their place.

## DISTANCE TO TRANSPORTATION

For each zone to develop, the farthest tile must be within a maximum distance range from a transportation source. In the current situation, every zoned tile must not be too far from a Road.

This actual max distance range varies by zone type:

- Residential: 4 tiles
- Commercial: 3 tiles
- Industrial: 5 tiles

Always keep these distances in mind when building zones; tiles too far away from transportation are a waste of zoning money. There is a way to expand these distances, but it won't be available for a while.



### CROSS REFERENCE

Distance to transportation is discussed in Chapters 12 and 18.

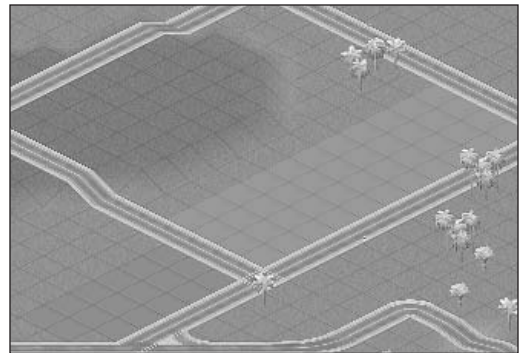


Fig. 3-18. Notice the difference in depth in each of these zones. The Residential zone on the right goes 4 tiles deep and the Commercial zone on the left goes 3 tiles deep.

These distances would be the same if the transportation in question was Rail instead of Road.

## PIPES

The next task is to run pipes from the Pumping Stations to your zones.

You may have noticed that zones will develop without water. What you probably haven't noticed is that they won't develop above a basic level. The limits are:

- Residential: Will only develop low density/low value or low density/medium value.
- Commercial: Will only develop low density, low-medium value.
- Industrial: Will only develop low density dirty and low density clean.



Certain money-stretching strategies call for leaving zones unwatered. There is, however, a very good reason not to do this. Water decreases the flammability of buildings. A building without water will burn much more readily than if it had full water service.

**CROSS REFERENCE**

Flammability is covered in Chapter 19.

To stretch water out across the map, run pipes. There's no need, however, to run the pipes under every tile, or even all the way to the edges of the city. This is because pipes "radiate" water in a 7-tile radius. Any surface structure within 7 tiles of a connected pipe will be watered.

Thus, you need only run pipes to within 7 tiles of the edges of your city at any given time. Though it seems a bit obsessive-compulsive to count back 7 from every edge, it will save you some money. Plus it looks tidier.

## POLICE AND FIRE COVERAGE

You want your city to be free (as much as possible) from crime and fires. Thus, set up the public safety system right from the start.

**TIP**

Fire and Police Stations directly benefit land value in Commercial and Residential zones, the effect being greater for Commercial.

Police and Fire Stations function similarly but not identically. What they have in common is how they do their respective jobs. Both kinds of stations emit protection in a circular radius. Everything within that radius receives the benefit of the station's crime or fire fighting abilities.

**CROSS REFERENCE**

Police and Fire coverage is investigated in Chapter 19.

Don't put stations near the edges of maps, however. Much of their protection would be wasted off the map.

You can overlap stations' protection radii. Doing so creates an additive effect; the protection provided by one station is added to the protection provided by the other. Be careful of overlapping Police Stations, though: if stations are too closely clustered, their protection will be rated as "Oppressive," and your mayoral Approval Rating will take a severe hit.

The big difference between Fire Station and Police Station protection zones is that fire protection is the same for every tile in the zone while police protection diminishes as distance from the station increases.

Where, then, to place our men and women in blue and red? Police and Fire Stations do not need Road access, so they are best placed in the middle of large zones.

## HEALTH AND EDUCATION

Theoretically, you should place all five health/educational structures at this point. For various reasons, it is in your interest to have your Sims as smart and as healthy as possible. It takes several generations for improvements in both of these areas. A good philosophy is *start early*. It's worth the extra expense to get a head start.



### TIP

Educational and health structures are great land value enhancers. Placing them near Commercial or Residential buildings raises the value of these buildings. In my city, for instance, my School is in the center of a Residential zone. This has a positive effect on all surrounding buildings.

Still, it's not practical to set down all necessary structures in your very first year. Not only will it cost to place the buildings, but their cumulative annual cost is more than \$3,000. Accept some debt and get your educational dividend started early; but take the conservative route now.



### CROSS REFERENCE

Health is examined in Chapter 20 and education is studied in Chapter 21.

Place a School in the middle of a large Residential zone. That's why that  $3 \times 3$  square was left in the middle of the zone. Schools and other health and educational structures enhance land value but require no Road access. Therefore, it pays to put them in the center of large zones. For Residential zones, this means squares of  $11 \times 11$ . For Commercial zones, you can only go to  $9 \times 9$  due to their lower maximum distance to transportation.

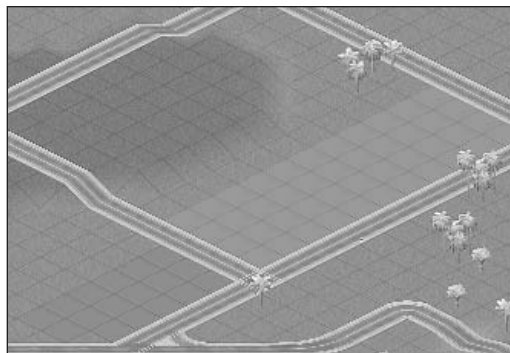


Fig. 3-19. The  $3 \times 3$  unzoned area in the middle of the Residential zone is perfect for a land-value-enhancing School.





## A FINAL NOTE ON POWER

It may occur to you, looking at these images, that Power Lines haven't been run to all buildings and zones, but only to within 5 tiles of the Residential neighborhood.

Remember the concept that power is spread in a 5-tile radius? Well, this rule applies not only to Power Lines but also to structures and even zones receiving power. If, for example, an empty zone tile is receiving power (by whatever means), it will convey that power to every tile within a 5-tile radius.

This can be very useful and makes your city look quite a bit neater. Power can, therefore, jump over Roads or undeveloped tiles as long as the gaps between zones or buildings are less than 5 tiles. If your city becomes dense enough, eventually do away with Power Lines all together.

## THE COST SO FAR

What have you spent so far? All this infrastructure has run just under \$18,000. You could have skimped in some areas (fewer Roads or no Neighbor Connections, for instance) and, were you playing on a higher skill level, you would have needed to. Because you have the cash, however, it's wise to build a stronger initial foundation to give this city's early development some shape.

Your monthly budget at this point is only half figured. The monthly cost of infrastructure has been listed in the Budget window: \$1,140 per year. That's pretty reasonable.

| Budget                   | Adjust                      | Year to Date Income | Year End Estimate | Meet Advisor |
|--------------------------|-----------------------------|---------------------|-------------------|--------------|
| 1901 Budget January 1901 |                             |                     |                   |              |
| Ordinances               | ✓                           | \$0                 | \$0               |              |
| Neighbor Deals           | ✗                           | \$0                 | \$0               | ✓            |
| Business Deals           | ✗                           | \$0                 | \$0               | ✓            |
| Transit Fares            | ✗                           | \$0                 | \$0               |              |
| Disaster Relief          | ✗                           | \$0                 | \$0               |              |
| Residential Tax Rate     | 0.0000 0.0000 0.0000 0.0000 | \$0                 | \$528             | ✓            |
| Commercial Tax Rate      | 0.0000 0.0000 0.0000 0.0000 | \$0                 | \$48              | ✓            |
| Industrial Tax Rate      | 0.0000 0.0000 0.0000 0.0000 | \$0                 | \$384             | ✓            |
| Year to Date Income      |                             | \$0                 | \$960             |              |
| Year to Date Expense     |                             | \$0                 | \$1,140           |              |
| Year to Date Cash Flow   |                             | \$0                 | \$-180            |              |
| Current Funds            |                             | \$29,885            |                   | ✓            |
| End of Year Funds        |                             | \$29,705            |                   |              |

Fig. 3-20. Before you start the game, you won't know your Income. You can, however, see your Expenses.

## 1900

## STARTING THE SIMULATOR

All the pieces are in place. Now it's time to get this car started. Press the Run Simulation button and set the speed to llama, the second-slowest setting.

It will take some time for power and water to be conveyed across your tiny town and for development to begin. In some cases, it can take up to a month in game time, so don't panic if things don't start up immediately.



Soon, zones will begin to develop as demand starts to show on the RCI Indicator.  
It's alive!

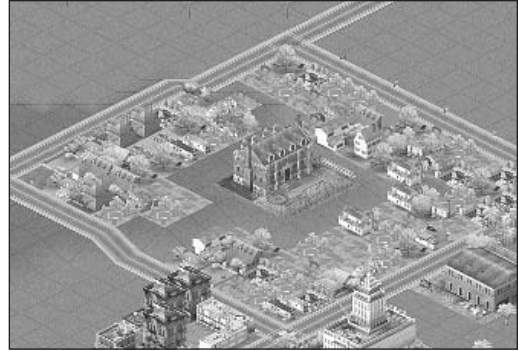


Fig. 3-21. After a few months, zones start to blossom with buildings.

## INITIAL DEVELOPMENT

It has taken about six months to fill your first zones.

Looking at the RCI Indicator, note that demand is low but positive; this means it's too early to add new zones. When demand is low, just watch and see what your city does.



### **CROSS REFERENCE**

**Demand and Development are outlined in Chapters 11 and 12.**

In August, notice that demand is on the rise. Pause and add a moderately sized low-density Industrial block.

Within a month, the new jobs created by the influx of Industrial development have boosted Residential demand. It's time to pause and add places for the Sims to live with a new block of Residential zones. Also, run new pipes under this block.

By December, Residential demand is booming. Because zones have filled, add a bit more Residential zoning down by the river. Proximity to water, you'll remember, engenders higher land value.

## 1901

As the calendar turns, a new year arrives and the Budget window has popped up. You're not turning a profit yet, but you're close.

## TAXES

The only source of Income right now is tax Income; because population is still low, you haven't started to realize substantial Income yet. This break, however, offers a moment to tinker with tax rates.

**CROSS REFERENCE**

Taxes and other budgeting topics are assessed in Chapter 9.

Tax rates can either attract immigration or cause an exodus. For example, 0 percent taxes will have Sims beating down your door, while 22 percent taxes leave your zones abandoned. The degree to which these effects occur, however, depends on the population of your city. In various ranges of population, the positive and negative effects of taxes vary as does the “No Effect Rate” (the rate at which taxes have *no effect* on Sim behavior).

When a city is new, low tax rates have a dramatic attractive effect, and high taxes have moderate repulsive effect. Most important, the “No Effect Rate” is at its highest: 9 percent. Thus, gouging your Sims for 9 percent taxes won’t scare anyone away. It won’t bring in any extra population, of course.

## CHECKING INFORMATION

It’s important to regularly take the pulse of your city by checking its data. The beginning of a new year is as good a time as any to do this, but you should really get in the habit of checking more often.

**CROSS REFERENCE**

Information gathering is discussed in Chapter 8.

## DATA MAPS

Your Data Maps provide visual feedback in several categories.

**NOTE**

Police and Fire Station radii are shown on the Crime and Flammability Data Maps, respectively.

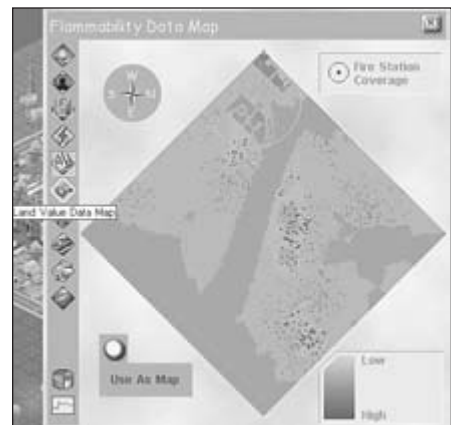


Fig. 3-22. Data Maps are among your most useful resources.

Get acquainted with the information provided on each of these maps and, with experience, you’ll learn when to consult each. Don’t forget that you can superimpose each of the Data Maps on the Navigational Map (lower right corner of the game screen). This can help to connect the information and the actual locations on your game map.

## GRAPHS

The Graphs offer more in-depth information on some of the game's key categories.

Pay particular attention to the education and health categories and their displays of Workforce Education Quotient (EQ) and Workforce Life Expectancy (LE). These two statistics are tied closely to one another and factor into many important game elements.



### NOTE

It might offer some perspective to know the maximum values for Life Expectancy and Education Quotient. The highest possible Life Expectancy is 90 years and the ultimate Education Quotient is 150. Also note that it is the LE and EQ of the *workforce* that is most important to you.

## CHARTS

Your Charts provide the status of several categories over time. At this stage of the game, the 1-year View is the most informative. After a decade, however, you'll want to switch to the 10-year View.

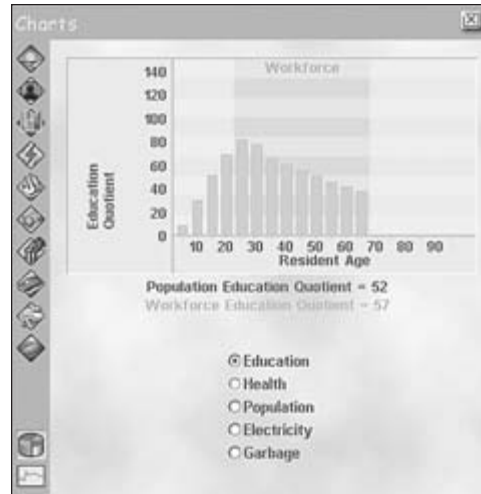


Fig. 3-23. Graphs highlight two of your most important stats: Life Expectancy and Educational Quotient.



Fig. 3-24. Charts show progress over time.



## QUERIES

Querying structures in your city can provide deep insight into several issues. Make a habit of regularly checking your municipal buildings, utility structures, transportation systems, and zoned structures.

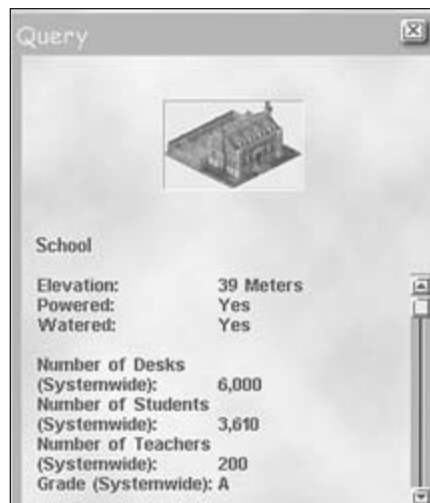


Fig. 3-25. Queries help you get the lowdown on individual buildings and the forces that impact them.

## LAYER VIEWS

Layer Views allows you to superimpose various data directly onto your game map. Wondering how far your Power Plant's pollution extends? Use Layer Views to see for yourself.

You can also use this tool to hide certain types of structures from your map. When your city gets large, it can be very helpful to hide zoned buildings so you can find, say, a Police Station.

## THE NEWS TICKER

Running along the bottom of your screen is the News Ticker. This is your most convenient information source. Watch it carefully and click on any linked items to be taken directly to meetings with your Advisors, Petitioners, or neighbors.

The News Ticker often tells you of important technological developments, available Neighbor and Business Deals, proposed Ordinances, Reward buildings, and the status of your city's important attributes.



Fig. 3-26. Layer Views can highlight parts of your city or display several statistics directly onto your game map.

## GROWING AND FIRST SURPLUS

By April, some more zones have been added and have, for the first time, shown a surplus. It won't last, but it's a good sign that the city is growing at the correct rate.

As population, particularly Residential, expands, make sure you're keeping up with basic services including Schools and public safety.

## TRAFFIC CONGESTION

Now that you've established a world for your Sims, they've begun to form patterns in their comings and goings. Looking at the traffic between Residential areas and Industrial zones, it's clear that the two Roads connecting them are not enough.



### NOTE

The congestion is obvious from the number of cars visible on the Road at low zooms. The Data Map, Query Tool, and Layer View confirm the traffic problem.

The first thing to do is to expand those two routes by laying down a parallel adjacent Road. This expands the Road into an Avenue that can handle twice as much traffic. You don't want to expand Roads too much or they start to consume too much land that could be paying taxes.

Next, add a Road running in the gap between Police and Fire Stations.

Finally, insert the first bit of mass transit. Sims traveling from Industrial zones love to ride the Rails, so a small network of Rails and Train Stations between the Industrial zones and the Residential neighborhoods serves quite nicely.

## NEIGHBOR DEALS

If you are using too little of your capacity of power, water, or garbage, any neighbors you've connected to will ask to buy resources from you.



Fig. 3-27. Avenues are established by running two Roads side by side.



Fig. 3-28. A small Rail network really alleviates the pressure on your small town.



For a fixed monthly fee, the neighbor will purchase a fixed amount of the desired utility.

You must have the capacity to accommodate your neighbor's needs along with your own and must be willing to expand to keep the deal going. If you fail to keep up your end of the bargain, you'll be charged a substantial penalty.

Near the end of the year, you will be offered deals to import garbage and to sell water and power. You don't want to expand your Landfills, so reject that one. However, the Water and Power Deals look good—with a city so small, all that extra capacity would be wasted.

For the next five years—the term of the deal—you are obligated to provide water and juice for both your city and the neighbor. The Income (\$480/year) is worth it, however.

## REWARD BUILDINGS

You must be doing a good job, because your Sims have offered you a house. Notice on the News Ticker that the Sims are pretty happy with you. The News Ticker item might take you to a meeting with a Petitioner who offers you a new Mayor's House.



### CROSS REFERENCE

All Reward structures are discussed in Chapter 27.

Once this (or any other Reward building) is accepted, the structure appears in the Rewards & Opportunities menu. These one-of-a-kind Reward buildings can be placed anywhere you like.

Most Reward buildings have positive attributes on any nearby structures. Sometimes the effect is very dramatic: enhanced land value, reduced pollution, etc. In the case of the Mayor's House, it has a very positive effect on Residential land value. Place yours right in one of the new Residential blocks.



Fig. 3-29. The Mayor's House is positioned to do the most good. It will boost Residential land value.

## 1902

Neighbor Deals have padded your projected surplus to a cool \$960! With this secure status, this will be a good year to expand your services to your Sims.





**TIP**

Before proceeding, take a tour through all data sources to see how the city is doing under the hood.

## NEW INDUSTRIAL DISTRICT

First establish a new Industrial district far away from the “nice” zones.

This zone could be placed across the river, but that would mean building a Bridge. More to the point, it would mean building multiple Bridges to avoid traffic bottlenecks.



**TIP**

Don’t forget to add new Police and Fire Stations to serve this expanded area.

Instead, place it to the south, about halfway to the ocean. In anticipation of the heavy traffic this will engender, build a double-wide Road.

## HEALTH AND EDUCATION

Around this time, Advisors have begun to suggest adding health and educational services.

For various reasons, it is best to have your Sims as smart and as healthy as possible. Healthy and smart Sims raise mayoral Approval Rating, and a high EQ increases the probability that the city will attract clean, nonpolluting industry (see below).

It takes several generations to see improvements in both of these areas, however, so start early. It’s worth the extra expense to get a head start.

To be conservative, however, place these structures gradually over the first few years of this city. You could justify being more rash by enduring a little deficit spending for the sake of future success, but there are good reasons to be patient.

This year, the Sims get a Hospital.

Each of these structures serves a fixed number of Sims. As long as the structures are serving fewer than their maximum capacity, they operate at full efficiency. If, however, the relevant population



Fig. 3-30. Your first Hospital will provide sufficient health care for a while.





(i.e. students, patients, etc.) exceeds capacity, the effectiveness of the buildings will drop proportionally.

These population levels are:

- School: 1,500 students
- Hospital: 1,500 patients
- City College: 7,500 students
- Library: 41,000 population
- Museum: 83,000 population

Building additional structures before your existing ones reach capacity does not make them more efficient; it's just a waste of money. For the first three structures, keep an eye on their Query boxes to determine if they are near capacity.

**NOTE**

None of the health or education buildings require Road access; nor do they require water.

It should be noted that Hospitals are unique in one respect. The number of Sims needing their services can change. Thus, a Hospital can become overcrowded without total population changing. This usually happens when pollution increases—high pollution means more Sims need hospital care.

## POWER PLANT CAPACITY

An item on the News Ticker needs attention. Power supply, it seems, is only “adequate.” A quick check of the Coal Plant reveals that you are approaching maximum capacity for power supply.

Because there's a lucrative Neighbor Deal in place, do something about this problem. Another plant is one option, but that would devour the entire benefit of the deal.

The only solution is to control the growth of the city and prevent any more increases in power usage until the deal expires (1907).

## CONTROLLING GROWTH

Keeping power usage down is but one of many reasons to control the growth of a city. It does, however serve as a good illustration.

The simplistic way to control growth is to stop zoning new land. Without available Residential zones, Sims can't move in. However, just ignoring demand for zones will do more harm than good.

You need to control demand to keep it as near as possible to 0 without ever going below that.

The most effective way to do this is with high taxes. If you want to tame demand, inch your tax rates on the appropriate zone type upward until demand levels off. Wait a while between adjustments to see what effect your change has had—it can often take some time to show up and you don't want to overcorrect in the interim.

The upside is that this move will generate a bit more money. On the downside, if external economic trends bottom out, you could have a major exodus on your hands. To combat these mishaps, keep a keen eye on the RCI Indicator and react if demand starts to plummet unexpectedly.

## 1904

The growth control is going well and the Power Plant is not yet over capacity. Because there's a decent amount of cash on hand, times like these are excellent opportunities to work on enhancing land value. This will generate more taxes with no increase in population.

## ADDING PARKS

Parks are one of your best land value enhancers. They come in all shapes and sizes, so it's easy to squeeze in a Park on almost any spare tile.

As discussed previously, it's good policy to zone blocks with open spaces in the middle. These gaps can be used for municipal buildings or, even better, for Park land.

Not only do Parks boost land value, but they also decrease pollution in surrounding buildings.



Fig. 3-31. Leave  $3 \times 3$  blocks in the center of zones so you have space to place land-value-enhancing water or structures in the center of zones where they can do the most good.



### CROSS REFERENCE

Recreational buildings and their effect on demand are discussed in Chapters 11 and 22

Parks also provide your city with vital recreational opportunities. Once your city starts to really hum, it will become necessary to constantly add to its supply of recreational space. If there's nowhere to play, demand for your city will simply dry up until you add some diversions. That's a ways off for this city, but it never hurts to start early.



## PLACING WATER

The best of all land value enhancers (and also the most expensive) is proximity to water. This can mean building near existing bodies of water or creating your own water with the “Create Surface Water” Tool.

Take those open spaces in your zones and place water in them for the ultimate Land Value Effect.

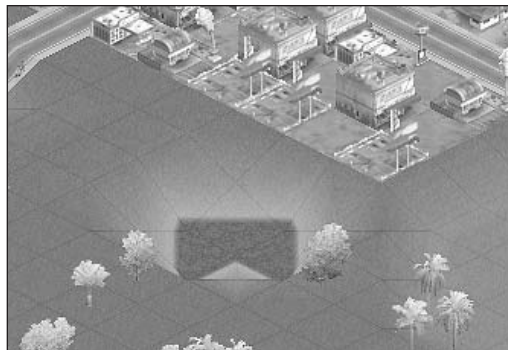


Fig. 3-32. Water is the best but most expensive use of the open space.



### NOTE

A cheaper way to add water is to use the “Lower Terrain Tool” until you reach sea level. The downside to this is that it demolishes any pipes or Subway Tunnels below the tile.

## ADDING A LIBRARY

One of the most cost-effective structures for enhancing your Sims' EQ is the Library. Once your Sims leave College, their EQ begins to decline. Providing a Library slows the decay and, therefore, increases your city's average EQ. This, in turn, makes the next generation of Sims that much smarter.

Libraries serve at full efficiency until your population reaches 41,000.

## 1907

As in every year, check data sources to see what's going on behind the scenes.

## MEETINGS

Check the Meeting window monthly to see who wants to talk to you. Many of the items appearing in this window also flash across the News Ticker, but it's good practice to look in here for items you've missed.

In the Meeting window, you'll be approached by various Petitioners, neighbors, and other applicants for your attention. Some just want to praise, others want to bury, but most want you to do something such as pass or repeal an Ordinance, sign a Power Deal, or build something in your town.



Fig. 3-33. Meetings with others are among your most important duties. Check this window every few months.

## NEIGHBOR DEAL RENEWALS

The five years of the Power Deal is about to expire and the mayor of Martyndale has proposed a revision to it. His needs would certainly require a new Power Plant for your city. Because you were only selling power to use up excess juice, it doesn't make sense to expand for the sake of the deal. Therefore, cancel the deal.

The Water Deal renewal is tempting, however. Expand to accommodate it for a pretty small investment (Pumping Stations are much cheaper than Power Plants). Accept this deal.

## RESTARTING GROWTH

Because the threat of Power Deal cancellation no longer hangs overhead, it's time to start growing again.

Drop tax rates back down to around 9 percent and get ready to zone.

## 1910

Growth in the last three years has been tremendous. With the population at 15,000, things are starting to bustle. What's next?

## MORE EDUCATION

The population has grown enough that a second School is now required. Place this and your first Museum in the middle of what will someday be a Residential or Commercial zone.

The Museum has an additional EQ-preserving effect (over and above the effect of Libraries) and serves 83,000 Sims.

## INCREASING DENSITY

Try to avoid expanding beyond the current shape of your city. Expansion would require additional Police and Fire Stations and Bridges across the river. You need to get the most out of the limited land now available.

The city's growth is now sufficiently stable that it's time to set up some higher-density zones.



Medium- and high-density zones can be tricky to work with because they have such a strong effect on demand. A small zone of high density, for example, answers as much demand as a large zone of low density. You have to be careful to set up higher-density zones in small blocks.



Fig. 3-34. Demolish this low-density zone...



Fig. 3-35. ...and replace it with a higher-density zone.

The best way to start integrating higher-density zones is by demolishing small parts of low-density blocks and replacing them with medium-density zones. This adds to your population without consuming any more land.

## ORDINANCES

Ordinances are city laws enacted by the mayor. They can bring in money, cost money, or have myriad other effects on your town.



### CROSS REFERENCE

An index of Ordinances appears in Chapter 23.

You can pass any available Ordinances any time you like, of course, but consider waiting for a Petitioner to propose it because that's often a good sign that conditions call for the Ordinance.

In this instance the proposed Ordinance involves reducing the effects of Earthquakes. This one's a no-brainer: pass it.

Frequently check your Meeting window and News Ticker for proposed Ordinances or check in the Ordinances window yourself for what's available for your enacting signature.

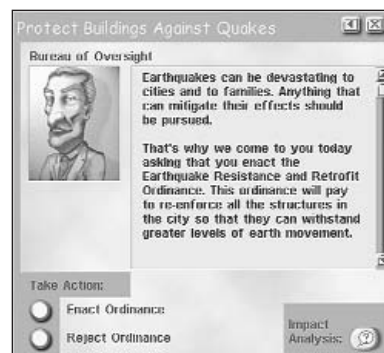


Fig. 3-36. Ordinances are an often neglected method of impacting your city's most vital statistics.

## DISASTER PREMONITIONS

Once you've played for a while, you can tell when a News Ticker item is important. For example, an item just flashed up saying "UFO Seen and Disavowed." This is an early warning that a UFO Disaster is imminent in the near future.

Most Disasters are preceded by increasingly obvious warnings in the News Ticker—yet another reason to keep your eyes on this wonderful information source.

## 1912 SUBWAYS

Subways have been invented, as announced by an Advisor via the News Ticker. It is now possible to build one of these transportation marvels in our city.

Subways are great inventions, but they cost a bundle.

However, if you really want to build a Subway, it's one of the most respectable reasons to take out a Loan. The massive capital outlay for even a basic Subway System is best paid for (as in the real world) with debt. You can pay this money back over time while reaping the benefits of smoother travel.

Given the small size of your city, build the Subway gradually, starting with a two-stop system between the hearts of the Residential and Industrial areas. Because there's an existing Rail network, add, as a third stop, a Subway-to-Rail Connection next to one of the Train Stations. These stations must be connected by Tunnel to the Subway System and be next to the Rails of the Train System.

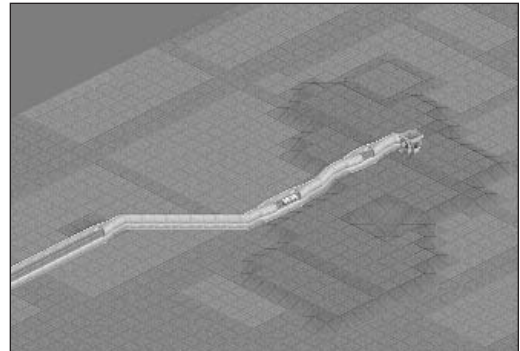


Fig. 3-37. Even a Subway System this small helps unclog traffic. Subway Stations can now be added gradually, as Income allows.



Fig. 3-38. Subway-to-Rail Connections are an inexpensive way to integrate your surface and underground Rail Systems.





## SLOWING GROWTH

Once your city grows to the point of needing additional services, it's time to cool growth a bit. Because your city is running at a small surplus, and cash on hand is running out, the best plan is to relax for a few years and tinker while your city thrives at its current level.

## 1913 ORDINANCES AND INCOME

The city could use a little extra Income. One source is Ordinances.

At this stage, the only Income-generator is Legalized Gambling. As you might imagine, its Income stream is a mixed blessing, providing reliable money but adding substantially to the city's crime burden.

You can counteract the effect a bit by passing two known crime reducers: Junior Sports and Youth Curfew.

## 1915 BUYING POWER

Your Coal Plant is being pushed to the limit.

You could just ignore it. The truth is that a Power Plant's "maximum" capacity is not actually its true top level. A Power Plant can run up to 120 percent capacity but can only do so for 18 months. After that point, there is a constantly increasing risk that the plant will explode.

You don't want to do that; you don't want to build another, and, frankly, you don't want the darn thing in your city anyway. Instead, buy power from your neighbor.

With a deal in place, demolish the Coal Power Plant and improve the air quality in your city.

## GARBAGE EXPORT

In this same spirit of environmental activism, the time has come to export garbage to a neighbor. This deal allows for sending away any trash that your own Landfill can't handle. You also have the option to cut off Road access to the dump and have *all* trash shipped outside the city.



# 1916

## SHUTTLE SERVICE

Earlier, mention was made of a way to get your Sims to travel farther to find transportation. The way to do this, which is available only after you've set up a small mass transit system, is to pass the Shuttle Service Ordinance. This expensive law *increases by 1 tile* the distance Sims will travel to find transportation.

Thus, each type of zone can be 1 tile deeper than it was before. You've actually planned for this by making the Residential zones along the southeastern border 5 tiles deep (instead of the 4 tiles required before Shuttle Service). Once the Ordinance is passed, this band of tiles at the back of the blocks will start to develop.

This also means that large blocks of zones, surrounded by Roads, can be even larger. Previously, a Residential block with a  $3 \times 3$  space in the middle for a School or Park would have been  $11 \times 11$ . Now it can be  $13 \times 13$ .



Fig. 3-39. This Residential zone can now develop in the back row. This area was left open for future zoning for just this reason.

## BUSINESS DEALS

All service and transportation upgrades, as well as dependence on imported utilities, have cost the city in cash flow. It's still running at a small surplus, but that's not really good enough.



### CROSS REFERENCE

The fine print of Business Deals can be found in Chapter 25.

Into your first crisis swoops a slimy savior. The city has been offered a Business Deal: build a Casino in the city and get a regular cut of the profits. Essentially, you are accepting an undesirable structure in exchange for a regular flow of money. It is, by the way, a very big flow of money.

**TIP**

Business Deal buildings should be treated like Power Plants and Landfills—place them way outside your city. The desire to place them at a great distance must be balanced against the cost to provide power, water, and transportation. It is very expensive to place them too distantly.

In the case of the Casino, its negative side effect is a dramatic increase in crime. Placing a Police Station very near the Casino will be sufficient to counteract the problem—an expense more than paid for by the increase in Income.

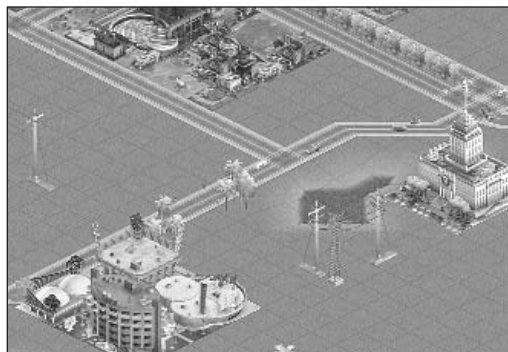


Fig. 3-40. The Casino will violently boost crime, but the nearby Police Station keeps it in check.

## SUBSIDIZED MASS TRANSIT ORDINANCE

A periodic review of Ordinances reveals an important addition. You can now pass the Subsidized Mass Transit Ordinance. This law cuts the Income received from the mass transit system, but significantly increases the probability that Sims will get on mass transit when they find it. This goes a long way to improving traffic flow, and it's worth every penny.

## 1920

In celebration of Primatown's 20-year anniversary, the city deserves some real-world Landmarks.

## LANDMARKS

You've recreated the Mall in Washington, DC, right across from the "New Potomac River." Now your Sims can visit the Lincoln and Jefferson Memorials, the Washington Monument, the Capitol, the White House, and the Smithsonian right in their own town.

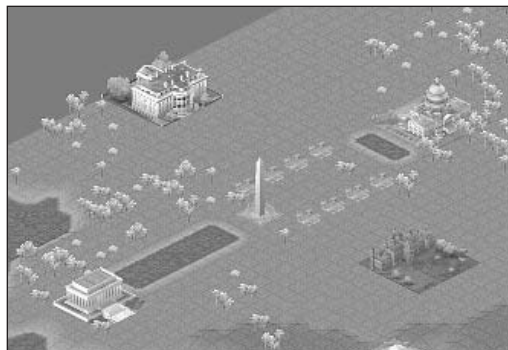


Fig. 3-41. Landmarks are mostly for aesthetic effect but do serve a valuable purpose: they distract UFOs from the rest of your city.

Landmarks cost nothing to build and require no services. Their only job is to stand there and look pretty. They can be used to fill otherwise open space between Industrial zones and the rest of your city. They can also be placed elsewhere on the map to distract UFOs away from your city—Landmarks are their favorite targets.

## BUSES

This year, you can start building Bus Stops. For the money, Buses are the best form of mass transit: they're cheap, and they use Roads instead of Rails or Tunnels. What's more, despite their use of the Roads, they don't actually contribute to traffic density.

The best part about Buses is that Sims can disembark anywhere they like. This means you only have to build Bus Stops where Sims actually *board* Buses. For instance, your Sims starting their journeys from Commercial and Residential zones can take the Bus to their jobs in the Industrial zones, but you don't have to build Bus Stops there—the return trip is assumed.

Place Bus Stops on every corner in Residential and Commercial neighborhoods.



Fig. 3-42. Buses are the most inexpensive way to loosen up your city's traffic congestion.

## CLEAN INDUSTRY

As time passes, you will start to see a strange sight in your Industrial zones: clean white buildings. This is the evolutionary step in production: clean industry.

Because technology develops slowly, the flow of clean industry to supplant dirty industry is a slow process. You can speed it up however by raising your Sims' EQ (through a good School and post-School system) and by enacting a series of pro-clean industry Ordinances as they become

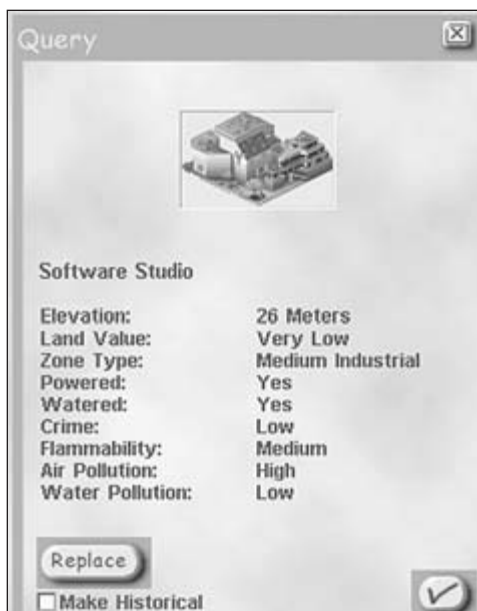


Fig. 3-43. Clean industry will eventually supplant your polluting dirty industry if you properly encourage it.



available. Eventually, when clean industry becomes more common, you'll need to start actively discouraging dirty industry through Ordinances designed to scare off big polluters. This leaves more room in your zones for clean industry—but don't start chasing the dirty type off until the clean type is beating down your door. Premature discouragement of dirty industry results in empty zones.



### CROSS REFERENCE

The dirt on clean industry appears in Chapter 30.

Why do you want clean industry? Because it doesn't pollute and it can tolerate higher land value. Higher land value means higher tax revenue. Less pollution means you can build Industrial zones closer to Residential zones, lowering the cost of transportation.

Clean industry is a long-term goal, but you must start encouraging it early.

## DISASTER STRIKES

The Sims of Primatown awoke to a violent shaking as the city endured its first Earthquake. As a result, some fires broke out in an Industrial neighborhood. Fortunately, this area was covered by a nearby Fire Station and the blaze was extinguished automatically.



### CROSS REFERENCE

Disasters are dissected in Chapter 26.

Had the fire been in an uncovered area, or had extra firefighters been necessary for a particularly large blaze, you could have used the Dispatch Firefighters button in the Emergency Toolbar to call more fire squads to the scene. You have one Dispatch squad per Fire Station plus one citizens' brigade that's available even if you have no Fire Stations.



### NOTE

Dispatching Police works the same way, but it's only relevant in a Riot Disaster.



Fig. 3-44. Earthquakes cause fires, but quick dispatches help extinguish the blaze before it's too late.

When a Disaster occurs, the game goes into a special, extra-slow speed, allowing you to react in real time. You can't pause the game while a Disaster is ongoing. You can stop the game by bringing up the Save As, City Options, or Budget window, but you won't be able to make changes to your city while the game is on hold. This limitation requires you to react to Disasters as they happen, fixing problems at whatever chaotic pace they occur. When the Disaster is over, the game returns to normal speed—then you can pause to assess the damage. Surveying the destruction, notice that some Road tiles and a number of pipes have been destroyed, and you've lost a Pumping Station. These can be easily replaced.

More urgently, you've lost the Power Line connection to your neighbor, Martyndale. Because you purchase your power from Martyndale, it's imperative to reestablish this connection before resuming the game—otherwise, your city will suffer a total blackout, and you'll be forced to pay the cancellation penalty on the deal.

Yes, even if a connection is destroyed by accident, you must pay the cancellation penalty on a Neighbor Deal. If you fix it before anyone notices, however, you can save yourself some serious Simoleons.



**TIP**

You were able to rebuild the connection to Martyndale before the Power Deal was canceled. Still, the experience drives home the necessity of multiple connections to a neighbor with whom you have a deal. The likelihood of two or three connections being destroyed in a given Disaster is remote. Thus, having redundant connections ensures that you won't suffer broken deals for broken connections.

# 1923

## JAIL

Life in the big city means crime. There comes a time when you have to give your police a little boost with a Jail. Without a Jail, your Police Stations only operate at a fraction of their efficiency. With a well-run Jail, however, they can run at full efficiency.

Don't place Jails right off the bat because they're very expensive. Now that you can afford it, build one Jail—enough for the flow of convicted criminals.

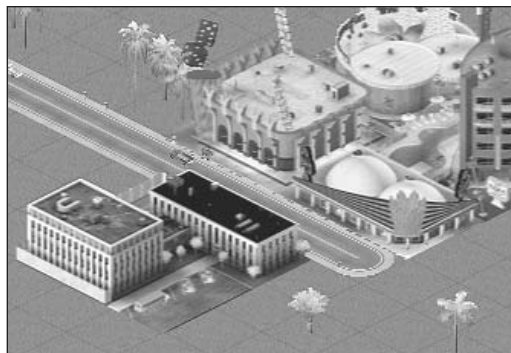


Fig. 3-45. Book 'em in this brand spanking new Jail. Place it where it can't devalue Residential and Commercial zones.





If the number of inmates exceeds the number of cells, a Jail is overcrowded and police efficiency will start to drop again as excess cons are released to alleviate the Jail population. Query your Jails frequently to see if they are filling up. If so, and only if so, place another Jail. Jails, by the way, are terrible neighbors. They decrease land value dramatically, so keep them away from your Residential and Commercial zones. Put one out by the Casino. Fitting, no?

## CITY HALL AND COUNTY COURTHOUSE

Your city's growth and a good Approval Rating have netted you two more Reward structures: the City Hall and the County Courthouse. Both of these structures are great land value enhancers, especially in Commercial neighborhoods. Place both near a struggling Commercial zone.

## 1925 TORNADO

News Ticker messages about the sky turning dark warn that something is up. Suddenly, a funnel cloud forms near the river.

When a Tornado touches down in a Residential neighborhood, press the Activate Warning Siren button in the Emergency menu. This sounds the city's Early Warning System to tell Sims to get out of the streets in the event of certain Disasters.

The Tornado didn't do much damage but enough to qualify your city for Disaster Relief Funds. This grant comes from the SimNation government and represents a fraction of the repair costs. By sounding the Early Warning System as the Disaster began, you earned a bonus 10 percent of the grant. It pays to keep your Sims out of harm's way as Disaster approaches.



Fig. 3-46. The City Hall and County Courthouse will help this Commercial district thrive.



Fig. 3-47. It's a twister! Luckily, you had warning of this storm's arrival. Fortunately, it only skirted the city before petering out.





## NOTE

The Early Warning System works with Tornadoes and UFOs. In *SimCity 3000 Unlimited*, it also works with two of the new Disasters: Space Junk and Toxic Cloud.

Once Disaster Relief Income appears (the month after the Disaster), use it for whatever you like, including restoring Roads and utilities, clearing rubble of destroyed buildings (to allow new buildings to grow in their place), or to buy a new Bus Stop.

# SUMMARY

This tour covers only a portion of what you must know to become a world-class Mayor. It does not claim to be comprehensive. What it does claim to do is let you observe some of the decisions and issues that arise as you are getting your city's feet planted in its first quarter century. You should have learned several specific bits of information and see how several game elements relate to one another.

This is not, however, even a large fraction of the story. The remainder of Part 1 outlines and reinforces many of the things described in this chapter and provides even more boiled-down quick references to help you to react to myriad situations.

These tools are for the player who's still getting used to the experience of playing *SimCity 3000*. Once you're beyond this point, it will be time to dive into the next three parts. The information they contain goes to the very heart of the simulation and will enable you to use even the most subtle of the game's rules and mechanics to improve your town.

Good luck, your Honor.



# VITAL INFORMATION

Searching for important information can be a lot of work. Making informed decisions demands having basic information at your fingertips; that's why we created this chapter.







Come here for quick bits of information on costs, building sizes, year availability, and the most important buildings in terms of land value, pollution, crime, and aura.

All of the information in this chapter is discussed in greater detail in Parts 2–4.



## LANDSCAPE














**Table 4-1. Landscape Tool Costs**

| <i>Tool</i>   | <i>Use Cost</i> |
|---|-----------------|
|  Create Surface Water | \$150/tile      |
|  Demolish             | Variable        |
|  Level Terrain       | Variable        |
|  Lower Terrain      | \$25/tile       |
|  Plant Trees        | \$3 per tree    |
|  Raise Terrain      | \$25/tile       |



# ZONE






**Table 4-2. Zone Costs**

| <i>Zone</i>  | <i>Cost Per Tile</i> | <i>Zone</i>  | <i>Cost Per Tile</i> |
|--|----------------------|--|----------------------|
|  Light Residential Zone  | \$10                 |  Medium Industrial Zone | \$20                 |
|  Medium Residential Zone | \$20                 |  Dense Industrial Zone  | \$50                 |
|  Dense Residential Zone  | \$50                 |  Dezone Zone            | \$2                  |
|  Light Commercial Zone   | \$10                 |  Landfill Zone          | \$50                 |
|  Medium Commercial Zone  | \$20                 |  Seaport Zone           | \$250                |
|  Dense Commercial Zone   | \$50                 |  Airport Zone           | \$500                |
|  Light Industrial Zone   | \$10                 |  |                      |







# BUILD TRANSPORTATION

**Table 4-3. Transportation Cost, Availability, and Size**

| <i>Mode</i>   | <i>Build Cost</i>     | <i>Monthly Maint. Cost</i> | <i>Year Avail.</i> | <i>Size</i> |                               |
|---|-----------------------|----------------------------|--------------------|-------------|-------------------------------|
|  Bus Stop | \$150                 | \$5                        | 1920               | 1 × 1       |                               |
|  Highway  | \$600/block (4 tiles) | \$0.30/tile                | 1940               | 2 × 2       |                               |
|  On-Ramp  | \$225                 | \$0.30                     | 1940               | 1 × 3       |                               |
|  Rail     | \$10/tile             | \$0.10/tile                | 1900               | 1 × 1       |                               |
|  Road     | \$10/tile             | \$0.10/tile                | 1900               | 1 × 1       | <i>Continued on next page</i> |












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| <b>Mode</b>  | <b>Build Cost</b> | <b>Monthly Maint. Cost</b> | <b>Year Avail.</b> | <b>Size</b> |
|--|-------------------|----------------------------|--------------------|-------------|
|  Subway Rail               | \$150/tile        | \$0.20/tile                | 1910               | 1 × 1       |
|  Subway Station            | \$500             | \$10                       | 1910               | 1 × 1       |
|  Subway-to-Rail Connection | \$500             | \$10                       | 1910               | 2 × 2       |
|  Train Station             | \$250             | \$10                       | 1900               | 2 × 2       |











## BUILD UTILITIES

**Table 4-4. Utility Costs, Availability, and Size**

| <b>Utility Structure</b>   | <b>Building Cost</b> | <b>Year Available</b> | <b>Size</b> |
|--|----------------------|-----------------------|-------------|
|  Coal Power Plant        | \$5,000              | 1900                  | 4 × 4       |
|  Desalinization Plant   | \$1,500              | 1960                  | 3 × 3       |
|  Fusion Power Plant    | \$50,000             | 2050                  | 4 × 4       |
|  Gas Power Plant       | \$4,500              | 1955                  | 4 × 4       |
|  Incinerator           | \$7,500              | 1920                  | 3 × 3       |
|  Microwave Power Plant | \$30,000             | 2020                  | 4 × 4       |
|  Nuclear Power Plant   | \$20,000             | 1960                  | 4 × 4       |
|  Oil Power Plant       | \$8,500              | 1900                  | 4 × 4       |
|  Power Lines           | \$5/tile             | 1900                  | 1 × 1       |

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| <i>Utility Structure</i>   | <i>Building Cost</i> | <i>Year Available</i> | <i>Size</i> |
|--|----------------------|-----------------------|-------------|
|  Pumping Station             | \$300                | 1900                  | 1 × 1       |
|  Recycling Center            | \$5,000              | 1970                  | 3 × 3       |
|  Solar Power Collector       | \$15,000             | 1985                  | 4 × 4       |
|  Waste-to-Energy Incinerator | \$25,000             | 2000                  | 3 × 3       |
|  Water Pipe                  | \$5/tile             | 1900                  | 1 × 1       |
|  Water Tower                 | \$150                | 1900                  | 2 × 2       |
|  Water Treatment Plant       | \$15,000             | 1935                  | 2 × 2       |
|  Windmill                    | \$250                | 1980                  | 1 × 1       |



## PLACE CIVIC/SPECIAL BUILDINGS



**Table 4-5. Civic/Special Buildings Cost and Size**

| <i>Structure</i>   | <i>Building Cost</i> | <i>Monthly Maint. Cost<br/>(@ 100 percent funding)</i> | <i>Size</i> |
|--|----------------------|--|-------------|
|  Casino Row        | \$0                  | \$0  | 5 × 5       |
|  City Hall         | \$0                  | \$0  | 3 × 3       |
|  College           | \$3,000              | \$125  | 3 × 3       |
|  Country Club      | \$25,000             | \$0  | 5 × 5       |
|  County Courthouse | \$0                  | \$0  | 3 × 3       |

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|  | <b>Structure</b>        | <b>Building Cost</b> | <b>Monthly Maint. Cost<br/>(@ 100 percent funding)</b> | <b>Size</b> |
|--|-------------------------|----------------------|--|-------------|
|    | Defense Contractor      | \$25,000             | \$0  | 5 × 5       |
|    | Fire Station            | \$500                | \$30   | 3 × 3       |
|    | Fountain                | \$100                | \$0  | 1 × 1       |
|    | Geyser Park             | \$10,000             | \$0  | 5 × 5       |
|    | GigaMall                | \$0                  | \$0  | 5 × 5       |
|    | Haunted House           | \$0                  | \$0  | 5 × 5       |
|    | Historic Statue         | \$0                  | \$0  | 1 × 1       |
|    | Hospital                | \$500                | \$50   | 3 × 3       |
|   | Jail                    | \$2,500              | \$75   | 3 × 3       |
|  | Landmarks               | \$0                  | \$0  | Varies      |
|  | Large Park              | \$1,000              | \$0  | 3 × 3       |
|  | Library                 | \$1,000              | \$50   | 2 × 2       |
|  | Lighthouse              | \$5,000              | \$0  | 2 × 2       |
|  | Marina                  | \$3,000              | \$0  | 3 × 3       |
|  | Maximum Security Prison | \$0                  | \$0  | 5 × 5       |
|  | Mayor's House           | \$0                  | \$0  | 2 × 2       |

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|  | <b>Structure</b>             | <b>Building Cost</b> | <b>Monthly Maint. Cost<br/>(@ 100 percent funding)</b> | <b>Size</b> |
|--|------------------------------|----------------------|--|-------------|
|    | Medical Research Center      | \$75,000             | \$0  | 3 × 3       |
|    | Military Base                | \$0                  | \$0  | 10 × 10     |
|    | Museum                       | \$1,500              | \$75   | 3 × 3       |
|    | Performing Arts Center       | \$0                  | \$0  | 2 × 2       |
|    | Playground                   | \$500                | \$0  | 2 × 2       |
|    | Police Station               | \$500                | \$30   | 3 × 3       |
|    | Pond                         | \$500                | \$0  | 2 × 2       |
|    | School                       | \$500                | \$30   | 3 × 3       |
|   | Science Center               | \$75,000             | \$0  | 5 × 5       |
|  | Small Park                   | \$100                | \$0  | 1 × 1       |
|  | Spaceport                    | \$250,000            | \$0  | 5 × 5       |
|  | Sports Park                  | \$2,500              | \$0  | 3 × 3       |
|  | Stadium                      | \$75,000             | \$0  | 5 × 5       |
|  | Stock Exchange               | \$0                  | \$0  | 4 × 4       |
|  | Theme Park                   | \$125,000            | \$0  | 10 × 10     |
|  | Toxic Waste Conversion Plant | \$0                  | \$0  | 5 × 5       |

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| <i>Structure</i>   | <i>Building Cost</i> | <i>Monthly Maint. Cost<br/>(@ 100 percent funding)</i> | <i>Size</i> |
|--|----------------------|--|-------------|
|  University        | \$0                  | \$0  | 10 × 10     |
|  Winter Wonderland | \$0                  | \$0  | 5 × 5       |
|  Zoo               | \$5,000              | \$0  | 4 × 4       |

## NEIGHBOR CONNECTIONS

**Table 4-6. Neighbor Connection Costs**

| <i>Connection Type</i> | <i>Cost</i>                 |
|------------------------|-----------------------------|
| Highway                | \$5,000                     |
| Rail                   | \$2,500                     |
| Road                   | \$2,500                     |
| Seaport                | \$2,500 (min. Seaport size) |
| Subway                 | \$4,000                     |

**Table 4-7. Top 10 YIMBYs By Zone**

| <i>Residential</i>   | <i>Commercial</i>      | <i>Clean Industrial</i> | <i>Dirty Industrial</i>     |
|----------------------|------------------------|-------------------------|-----------------------------|
| 1. Parks (all types) | Stock Exchange         | Defense Contractor      | Power Plant, Nuclear        |
| 2. Country Club      | Parks (all types)      | Fire Station            | Landfill                    |
| 3. Marina            | City Hall              | Military Base           | Toxic Waste Plant           |
| 4. Mayor's House     | County Courthouse      | Parks (all types)       | Power Plant, Coal           |
| 5. City Hall         | Lighthouse             | Police Station          | Power Plant, Oil            |
| 6. County Courthouse | Marina                 | Spaceport               | Desalinization Plant        |
| 7. Zoo               | Zoo                    | Subway Station          | Maximum Security Prison     |
| 8. Historic Statue   | Mayor's House          | Train Station           | Power Plant, Gas            |
| 9. Library           | Performing Arts Center | Bus Stop                | Waste-to-Energy Incinerator |
| 10. Museum           | Defense Contractor     | Casino Row              | Power Plant, Fusion         |

**Table 4-8. Top Ten NIMBYs by Zone**

| <i>Residential</i>          | <i>Commercial</i>        | <i>Clean Industrial</i>     | <i>Dirty Industrial</i> |
|-----------------------------|--------------------------|-----------------------------|-------------------------|
| 1. Power Plant, Nuclear     | Power Plant, Nuclear     | Power Plant, Nuclear        | Defense Contractor      |
| 2. Power Plant, Coal        | Power Plant, Coal        | Landfill                    | Fire Station            |
| 3. Toxic Waste Plant        | Landfill                 | Toxic Waste Plant           | Military Base           |
| 4. Landfill                 | Power Plant, Oil         | Power Plant, Coal           | Parks (all types)       |
| 5. Power Plant, Oil         | Toxic Waste Plant        | Power Plant, Oil            | Police Station          |
| 6. HD Dirty Industrial Zone | Power Plant, Gas         | Desalinization Plant        | Spaceport               |
| 7. Power Plant, Gas         | HD Dirty Industrial Zone | Maximum Security Prison     | Subway Station          |
| 8. Incinerator              | Jail                     | Power Plant, Gas            | Train Station           |
| 9. Power Plant, Fusion      | Spaceport                | Waste-to-Energy Incinerator | Bus Stop                |
| 10. Power Plant, Microwave  | Maximum Security Prison  | Power Plant, Fusion         | Casino Row              |



## TOP 10 AIR POLLUTION PRODUCERS

1. Toxic Waste Plant
2. Power Plant, Coal
3. Power Plant, Oil
4. Military Base
5. Incinerator
6. Power Plant, Gas
7. Spaceport
8. Waste-to-Energy Incinerator
9. University
10. Theme Park



## TOP 9 AIR POLLUTION REDUCERS

1. Country Club
2. Geyser Park
3. Large Park
4. Sports Park
5. Playground
6. Pond
7. Fountain
8. Small Park
9. Tree



## TOP 10 WATER POLLUTION PRODUCERS

1. Toxic Waste Plant
2. Military Base
3. Power Plant, Coal
4. Power Plant, Oil
5. Spaceport
6. Power Plant, Gas
7. Incinerator
8. Waste-to-Energy Incinerator
9. Theme Park
10. University



## TOP 9 WATER POLLUTION REDUCERS

1. Country Club
2. Geyser Park
3. Large Park
4. Sports Park
5. Playground
6. Pond
7. Fountain
8. Small Park
9. Tree



## TOP 10 GARBAGE PRODUCERS

1. Theme Park
2. University
3. Military Base
4. GigaMall
5. Stadium
6. Casino Row
7. Maximum Security Prison
8. Spaceport
9. Defense Contractor
10. Toxic Waste Plant



## TOP 10 CRIME GENERATORS

1. Casino Row
2. Military Base
3. GigaMall
4. Stadium
5. Theme Park
6. University
7. Spaceport
8. City College
9. Subway Station
10. Subway-to-Rail Connection



## TOP 10 AURA ENHANCERS

1. GigaMall
2. City Hall
3. Performing Arts Center
4. Stadium
5. Hospital
6. Medical Research Center
7. Library
8. Marina
9. Lighthouse
10. Casino Row



## TOP 10 AURA REDUCERS

1. Garbage
2. Toxic Waste Conversion Plant
3. Power Plant, Nuclear
4. HD Dirty Industry
5. Maximum Security Prison
6. Power Plant, Microwave
7. Jail
8. Rail Station
9. Polluted Water
10. MD Dirty Industry



### CROSS REFERENCE

For a comprehensive overview of Ordinances and their effects, see chapter 23.



# CAUSES AND EFFECTS

Understanding how *SimCity 3000*'s myriad elements interconnect is vital to making effective mayoral decisions. Consult this section when trying to decide how to make changes to your city.

## AGRICULTURAL DEVELOPMENT ENCOURAGED BY

- Farmers' Market Ordinance
- Positive Industrial demand
- Low Industrial taxes

## DIMINISHED BY

- Lawn Chemical Ban Ordinance
- Negative Industrial demand
- High Industrial taxes

## EFFECTS

- Job creation
- Industrial Demand Satisfaction
- Increased probability of UFO Disaster

## AIR POLLUTION CAUSED BY

- Buildings
- Road and Highway traffic



## DIMINISHED BY

- Certain Recreational and Reward structures
- Trees
- Clean Air Ordinance
- Conservation Corps Ordinance
- Clean Air Ordinance
- Industrial Pollutant Impact Fee Ordinance
- Landfill Gas Recovery Ordinance
- Leaf Burning Ban Ordinance
- Mandatory Car Smogging Ordinance

## EFFECTS

- Decreased aura
- Decreased land value
- Increased Hospitalization Rate
- Increased probability of Toxic Cloud Disaster (*SimCity 3000 Unlimited* only)

## AIRPORT DEVELOPMENT CAUSED BY

- Need for Commercial or Industrial Demand Cap Relief

## EFFECTS

- Commercial and Industrial Demand Cap Relief
- Increased pollution
- Increased crime
- Decreased aura
- Lowered Residential land value
- Increased Commercial/Industrial land value
- Job creation

# AURA INCREASED BY

- High Education Quotient
- High Life Expectancy
- Fire Coverage
- Police Coverage (up to 100 percent)
- Nuclear Free Zone Ordinance

# DIMINISHED BY

- Low Education Quotient
- Low Life Expectancy
- Pollution
- Oppressive Police coverage
- Crime
- Alternate Day Driving Ordinance
- Mandatory Car Smogging Ordinance
- Parking Fines Ordinance

# EFFECTS

- Represents your Mayoral Approval Rating
- Triggers several Reward buildings
- Higher probability of parades thrown in your honor
- Altered probability of the Riot Disaster



## BUSINESS DEALS CAUSED BY

- Legalized Gambling Ordinance (Casino)
- Year
- Less than \$1,500 in treasury for three consecutive months

## EFFECTS

- Job creation
- Increased Income
- Variable increases in pollution, aura, garbage output, and crime
- Variable decreases in land value and aura
- Commercial Demand Satisfaction (Casino, GigaMall)
- Increased probability of Toxic Cloud Disaster (Toxic Waste Conversion Plant, *SimCity 3000 Unlimited* only)
- Residential Demand Cap Relief (GigaMall)

## CLEAN INDUSTRY PROPORTION INCREASED BY

- High Education Quotient
- Year
- Aerospace Tax Incentive Ordinance
- Biotech Tax Incentive Ordinance
- Clean Industry Association Ordinance
- Conservation Corps Ordinance
- Electronics Tax Incentive Ordinance
- Electronics Job Fair Ordinance
- Public Access Cable Ordinance

## **DIMINISHED BY**

- Low Education Quotient (relative to city age)

## **EFFECTS**

- Increased number of clean industry buildings in Industrial zones (limited by yearly maximum proportions)

## **COMMERCIAL DEMAND**

## **INCREASED BY**

- Low Commercial taxes (relative to population)
- Tourist Promotion Ordinance
- Residential population increase
- Road, Subway, and Highway Neighbor Connections (Demand Cap Relief)
- Airports (Demand Cap Relief)
- Seaports (Demand Cap Relief)

## **DIMINISHED BY**

- High Commercial tax rates (relative to population)
- Residential population reduction
- Industrial Waste Disposal Tax Ordinance
- Lack of Demand Cap Relief when population reaches Demand Cap

## **EFFECTS**

- Commercial development
- Commercial expansion



# COMMERCIAL DEVELOPMENT CAUSED BY

- Access to transportation (within 3 tiles)
- Positive Commercial demand and available zones
- Population (percentage of Commercial to Industrial increases as city grows)
- Shuttle Service Ordinance (increases maximum distance to transportation)
- Power supply
- Water supply (above low density/medium land value)

# DIMINISHED BY

- Radiation Contamination
- Low land value (relative to zone density)
- Lack of demand
- Lack of access to transportation

# EFFECTS

- Increased Residential demand
- Job creation
- Commercial Demand Satisfaction

# CRIME CAUSED BY

- Crime-generating buildings
- Legalized Gambling Ordinance



## DIMINISHED BY

- Police Stations
- Jails
- Buildings
- Junior Sports Ordinance
- Neighborhood Watch Ordinance
- Conservation Corps Ordinance
- Youth Curfew Ordinance

## EFFECTS

- Decreased land value
- Decreased aura

## DIRTY INDUSTRY DEMAND CAUSED BY

- External demand (game start only)
- Low Industrial taxes (relative to population)
- Increased Residential population
- Road, Rail, and Highway Neighbor Connections (Demand Cap Relief)
- Seaport (Demand Cap Relief)
- Airport (Demand Cap Relief)
- Spaceport (Demand Cap Relief)

## DIMINISHED BY

- High taxes (relative to population)
- Reduced Residential population
- Clean Air Ordinance
- Clean Industry Association Ordinance



- Industrial Pollutant Impact Fee Ordinance
- Industrial Waste Disposal Tax Ordinance
- Power Conservation Ordinance
- Tourist Promotion Ordinance
- Water Conservation Ordinance

## EFFECTS

- Industrial development
- Industrial expansion
- Agricultural development

## DISASTERS CAUSED BY

- High flammability (Fire)
- Low aura (Riot)
- High unemployment (Riot)
- Random factors
- High pollution (Toxic Cloud—*SimCity 3000 Unlimited* only)

## DIMINISHED BY

- Providing water service (Fire)
- Adequate fire coverage (Fire)
- Earthquake Resistance and Retrofitting Ordinance (Earthquake)
- Reducing pollution (Toxic Cloud)
- Reducing unemployment and increasing aura (Riot)

## EDUCATION INCREASED BY

- Proportional supply of Schools, Colleges, Libraries, and Museums
- Junior Sports Ordinance
- Pro-Reading Campaign Ordinance
- Youth Curfew Ordinance
- High Life Expectancy

## DIMINISHED BY

- Lack of sufficient Schools, Colleges, Libraries, and Museums
- Low Life Expectancy

## EFFECTS

- Increased likelihood of clean industry developing
- High Education Quotient increases aura
- Low Education Quotient decreases aura
- Partially triggers Science Center and University Reward buildings

## FIRE COVERAGE INCREASED BY

- Fire Stations
- Fire Department funding

## DIMINISHED BY

- Reduced Fire Department funding
- Insufficient Fire Stations
- Fire Stations on strike



## EFFECTS

- Less than optimal coverage reduces aura
- More than optimal coverage increases aura
- Dictates if and how quickly a fire is extinguished

## FLAMMABILITY CAUSED BY

- Inherent values of buildings and trees

## DIMINISHED BY

- Adequate water service
- Leaf Burning Ban Ordinance
- Mandatory Smoke Detectors Ordinance

## EFFECTS

- Dictates whether fires catch on a given tile and how fast they grow

## GARBAGE OUTPUT CAUSED BY

- Buildings
- Leaf Burning Ban Ordinance

## DIMINISHED BY

- Recycling Centers (diverts trash from Landfills and Incinerators)
- Backyard Composting Ordinance
- Conservation Corps Ordinance
- Industrial Waste Disposal Tax Ordinance

- Paper Reduction Act Ordinance
- Tire Recycling Ordinance
- Trash Presort Ordinance

## EFFECTS

- Impacts demand on Landfills and Incinerators and the cost of garbage export deals

## GARBAGE POLLUTION CAUSED BY

- Landfills
- Piled surplus garbage

## DIMINISHED BY

- Cleaning up piled surplus garbage
- Decommissioning Landfills and allowing them to decay over time

## EFFECTS

- Decreased aura
- Decreased land value
- Abandonment
- Increased global pollution

## HEALTH INCREASED BY

- Adequate Hospital coverage
- Community CPR Training Ordinance
- Crossing Guards Ordinance
- Free Clinics Ordinance
- Public Smoking Ban Ordinance



## DIMINISHED BY

- Pollution
- Inadequate Hospitals

## EFFECTS

- Affects EQ (by keeping more Sims in the workforce)
- Impacts Industrial demand
- Affects aura
- Hospitals raise nearby land value, create jobs, and boost aura
- Partially triggers the Medical Research Center Reward building

## INCOME INCREASED BY

- Tax revenue
- Disaster Relief grants
- Business Deals
- Neighbors Deals
- Transit Fares
- Industrial Pollutant Impact Fee Ordinance
- Industrial Waste Disposal Tax Ordinance
- Legalized Gambling Ordinance
- Parking Fines Ordinance

## DIMINISHED BY

- Expenses
- Subsidized Mass Transit Ordinance
- Low land value

## EFFECTS

- Positive cash flow (if higher than expenses)

## INDUSTRIAL DEVELOPMENT CAUSED BY

- Access to transportation (within 5 tiles)
- Positive Industrial demand and available zones
- Shuttle Service Ordinance (Increases maximum distance to transportation)
- Power supply
- Water supply (above low density)

## DIMINISHED BY

- Radiation Contamination
- High land value (relative to zone density)
- Population (percentage of Industrial to Commercial decreases as city grows)
- Lack of demand
- Lack of access to transportation

## EFFECTS

- Increased Residential demand
- Job creation
- Commercial Demand Satisfaction

## LAND VALUE INCREASED BY

- Proximity to buildings with positive Land Value Effects (YIMBYs)
- Elevation above map average
- Proximity to water





- Location on City Center
- Homeless Shelter Ordinance
- Below average crime
- Below average water and air pollution
- Neighbor Deals to buy power or water or export garbage to the extent that these deals enable you to remove utility structures and Landfills from your city

## DIMINISHED BY

- Proximity to buildings with negative Land Value Effects (NIMBYs)
- Above average air and water pollution
- Garbage pollution
- Radiation pollution
- Above average crime

## EFFECTS

- Increased tax income

## LANDMARKS

## EFFECTS

- Attract UFOs away from other structures

## NEIGHBOR CONNECTIONS

## EFFECTS

- Industrial and Commercial Demand Cap Relief
- Enabled Neighbor Deals
- Increased neighbor populations
- Completed “trips” (see Chapter 18)

## POLICE COVERAGE INCREASED BY

- Police Stations
- Jails
- Police Department funding

## DIMINISHED BY

- Reduced Police funding
- Strikes
- Lack of adequate Jails

## EFFECTS

- Reduced crime
- Increased aura
- Decreased aura (if Oppressive)

## POWER CONSUMPTION CAUSED BY

- Buildings

## DIMINISHED BY

- Power Conservation Ordinance
- Stairwell Lighting Ordinance



## POWER SERVICE CAUSED BY

- Power Plants
- Neighbor Deals

## EFFECTS

- Enables zone development for all zone types

## RADIATION POLLUTION CAUSED BY

- Nuclear Power Plant explosion

## DIMINISHED BY

- Passage of thousands of years

## EFFECTS

- Abandonment
- Prevents development in 40-tile radius of blast site
- Lowers local land value
- Lowers local aura
- Reduces Life Expectancy (indirectly)

## RECREATION SUPPLIED BY

- Recreational structures
- Some Reward buildings

## EFFECTS

- Residential Demand Cap Relief
- Reduced pollution (most recreational structures)
- Enhanced land value
- Enhanced aura

## RESIDENTIAL DEMAND CAUSED BY

- Industrial and Commercial development
- Low tax rates (relative to population)
- Recreational structures and Reward buildings (Demand Cap Relief)

## DIMINISHED BY

- High Residential tax rates (relative to population)
- Negative Industrial or Commercial demand
- Lack of Demand Cap Relief when population reaches Demand Cap

## EFFECTS

- Residential development
- Residential expansion

## RESIDENTIAL DEVELOPMENT CAUSED BY

- Access to transportation (within 4 tiles)
- Positive Residential demand and available zones
- Shuttle Service Ordinance (increases maximum distance to transportation)
- Power supply
- Water supply (above low density/medium land value)



## DIMINISHED BY

- Radiation Contamination
- Low land value (relative to zone density)
- Lack of demand
- Lack of access to transportation

## EFFECTS

- Increases Industrial and Commercial demand
- Fills vacant jobs
- Residential Demand Satisfaction

## REWARD STRUCTURES CAUSED BY

- High aura
- Population milestones
- High EQ (Science Center, University)
- High LE (Medical Research Center)
- Numerous Park tiles (Geyser Park)
- Numerous Airport tiles (Spaceport)
- High treasury balance (Stock Exchange)

## DIMINISHED BY

- Low aura
- Low population

## EFFECTS

- Various building-specific effects on aura, crime, Demand Cap Relief, garbage output, job creation, land value, and pollution.

# TAXES EFFECTS

- Impacted demand in corresponding tax categories. Degree of impact depends on population.

# TRAFFIC CAUSED BY

- Population growth
- Population density
- Sims' tendency to "herd" toward successful transportation routes
- Frequent curves or Intersections in Roads
- Lack of mass transit
- Crossing Guard Ordinance
- Tourist Promotion Ordinance

# DIMINISHED BY

- Alternative transportation methods
- Expanding Roads
- Providing redundant routes
- Alternate Day Driving Ordinance
- Carpool Incentive Ordinance
- Parking Fines Ordinance
- Subsidized Mass Transit Ordinance

# EFFECTS

- Sims must be able to get to their destinations or their structures will be abandoned. If traffic is too bad, no one will be able to get where they're going.



# WATER POLLUTION CAUSED BY

- Structures

## DIMINISHED BY

- Water Treatment Plants
- Recreational and certain Reward structures
- Trees
- Conservation Corps Ordinance
- Industrial Pollutant Impact Fee Ordinance
- Lawn Chemical Ban Ordinance

## EFFECTS

- Reduced efficiency of Pumping Stations, Water Towers, and Desalinization Plants
- Decreased aura
- Decreased land value
- Increased Hospitalization Rate

# WATER CONSUMPTION CAUSED BY

- Structures

## DIMINISHED BY

- Mandatory Water Meters Ordinance
- Water Conservation Ordinance



# WATER SERVICE CAUSED BY

- Water supply structures and Water Pipes

# DIMINISHED BY

- Water pollution
- Lack or destruction of Water Pipes
- Excessive distance of water supply structures from water source
- Excessive water usage
- Inappropriate water type (salt or fresh) to water supply structure

# EFFECTS

- Decreased flammability
- Lack causes abandonment



# SUMMARY OF QUICK TIPS

6

SUMMARY OF QUICK TIPS

Finally, study and remember these tips very carefully to add a little extra zip to your mayoral bag of tricks.

Several of these tips serve as final reminders of vital concepts. Some ideas will be totally new to beginners. Some of these tips actually contradict ideas presented elsewhere in this section: the previous points have been general rules and safe strategies, while these tips are more subtle, advanced strategies that exploit the fuzzy edges of the general rules.

To be a good mayor, however, you must understand everything you can do. Using these tips will take you a step closer to that goal. I urge you, once you've gained some experience, to read the sections that follow. These chapters will flesh out many of the ideas we've already discussed and explain how and why several of the more radical tips in this chapter work.

## TIPS

- Build and zone very gradually, especially early in the game. It's tempting to go with the sometimes clamoring demand for space in your city, but resist the temptation; more Sims means that you need more services that cost money every month.
- Pause the simulation to tinker with your city. Set the speed to African swallow only if you want to quickly see what effect an action has.
- Under normal circumstances, run the game at llama speed. This is slow enough to allow you to see negative changes and fast enough that you won't be bored.
- Don't build Medium or Dense zones until your city is well established. They're expensive, and their effect on demand can be very unpredictable for the inexperienced.
- Build Power Plants in corners. A full three-fourths of its pollution effect will drift off your map and out of your global pollution level.
- Building in corners also gives you cheap access to two neighbors.
- Map edges are also great places for Industrial zones, Landfills, Business Deal buildings, and other structures with strong negative proximity effect.
- The effects of NIMBYs—buildings that lower land value—are not, however, minimized by placing them at the edges of maps.
- Because Industrial zones prefer low land value, buildings that are NIMBYs to other zone types are actually YIMBY (yes in my back yard) to industry. Anything that lowers Industrial land value is a good thing.

- Do not place Police Stations or Fire Stations near map edges—you'll lose a large portion of their protective effect.
- Power Plants should be within the radii of two Fire Stations to avoid a very costly Disaster.
- Always save the game before placing Fire and Police Stations so you can observe how their radii fall. If you don't like the coverage, or it leaves protection gaps, you can reload the game and place the structure elsewhere.
- Make sure your entire city has water service. Not only does this shut up your Advisor, but it also reduces the risk of fire.
- Water is conveyed from water structures and connected pipes in a 7-tile radius.
- Power emanates from juiced power lines, buildings, zones, and Power Plants in a 5-tile radius.
- Sometime before 2000, place a large group of Landmarks far outside your city. After this date, the UFO visits are no longer friendly. Their attacks, however, will center first on your free Landmarks. If you can get the crafts to spend enough time and do enough damage on the Landmarks, they may spare your city.
- Run pipes only to within 7 tiles of the edges of your city and expand only when necessary.
- Always place your Pumping Stations adjacent to a water source. The Pumps will run if they are 2 tiles away from water, but at a wastefully reduced capacity.
- Civic structures (Police and Fire Stations, Schools, etc.), Landmarks, and Reward buildings do not require transportation, power, or water. They'll still blink with the power-needed icon, but that doesn't obligate you to provide it.
- Query water before you place a Pumping Station. At the transition points between oceans and rivers, the water is often salty far into the river flow. This renders your Pumping Stations inoperative.
- Build Residential and Commercial zones as long strips (Residential: 8 tiles deep/Commercial: 6 tiles deep) with Roads on either side. Leave space in the center for Parks, Surface Water, or municipal structures. The fewer intersections your city has, the better traffic will flow.
- Residential zones can be no more than 4 tiles from a transportation source (usually a Road). Commercial zones can be only 3 tiles away, and Industrial zones have a maximum distance of 5.
- If you pass the Subsidized Mass Transit Ordinance, maximum distance to transportation and, therefore, block depth, is increased by 2. You'll lose some Transit Fare Income, but it's worth it.



- Make your Landfills as isolated as possible. If you want to decommission one in the future, you don't want to have to tear down something important or lose some strategically good land. Remember, to decommission a Landfill, there must be no transportation or zones within 5 tiles. The trash will then decay slowly over time. Only when the Landfill is empty can it be de-zoned.
- If you start a game in 1900, forgo Subways when they're invented. Save your cash and invest instead in Buses when they become available in 1920. They're a lot cheaper and they take up less ground than Trains.
- Don't put Bus Stops in Industrial zones; Sims taking trips starting there won't board Buses.
- Place a few tiles of each zone type around Subway and Rail Stations and Off-Ramps. This allows Sims exiting these modes of transportation to immediately find the zone type they seek. *SimCity 3000*'s preference for larger, denser zones may, however, make some Sims bypass these immediate, small destinations, but most will take the easy resolution.
- For transportation's sake, make several Neighbor Connections. When a Sim finds a Neighbor Connection, his or her trip will be considered a success.
- Provide several routes between your Industrial zones and the rest of your city with a mix of different transportation modes.
- Set up multiple, redundant Neighbor Connections as soon as you can afford it. If one is destroyed in a Disaster, you won't lose any existing deals while making the repairs.
- Early in your city's life, don't worry too much about Commercial development. It will be pretty anemic until your city gets rolling a bit. Young cities are, by definition, dominated by Industrial interests and gradually evolve toward Commercial dominance.
- Until population reaches 40,000, you can set your taxes as high as 9 percent and it will have no effect on demand. Leave it at this rate for all three categories unless you're actively trying to heighten or squelch demand.
- Don't shun loans. If your city is in the red and you can't cut expenses, a loan may be your only option. Also, financing an expensive but highly beneficial capital improvement project (e.g., building a Subway) is an extremely good excuse for a loan.
- Don't be afraid to demolish. If there's demand, your Sims will build again—they've no emotional attachment to their buildings. Progress always requires substantial demolition.
- Try to pinpoint the geographical center of your city. Barring high pollution or crime (or any other land value depressants), the land value at this center point should be your city's highest. If depressing factors have not counteracted this so-called "City Center Effect," build a nice high-density zone to see some skyscrapers grow.

- Landmarks have no effect on land value, aura, crime, or pollution.
- Tax rates have no effect on land value.
- Land value is not affected by the demand for zoned land. Unlike in the real world where high demand raises value, land value in *SimCity 3000* is based on other factors and remains the same whether demand is tepid or fervent.
- Avenues are really a waste of money. They produce twice the pollution of Roads and cost twice as much to build and maintain. More benefit can be derived from setting up an extensive array of Bus Stops.
- Curves and intersections clog traffic. Whenever possible, use long, straight roads.
- Avoid Incinerators at all costs. Yes, they consume lots of garbage, but they produce a choking amount of pollution. Your city will never prosper as long as it has even one Incinerator.
- Take all Business Deals. The income they generate far outweighs the inconvenience of placing them at a distance from your city. The only one that should give you pause is the Toxic Waste Conversion Plant; there's not much you can do to counteract that much pollution.
- Never turn down a Reward, even those that cost you money to build. If you can't afford them now, wait until your financial state improves. Be sure to study each building's effects on other buildings (see Part 3) in order to place them advantageously.
- Place civic buildings where they can have the maximum effect on land value. Consider placing them deep inside Commercial and Residential zones exclusively.
- Wait to build Jails until your Advisors start reminding you. They are very expensive and you'll need to keep them under capacity to have any effect. Their law enforcement effect is substantial, but requires an ongoing commitment of funds.
- Once your city starts to be dominated by clean industry, demolish straggling enclaves of dirty industry until they're replaced by clean buildings.
- Don't pass Ordinances that scare away dirty industry until your city's ability to attract clean industry is well established. Premature discouragement of dirty industry will result in abandoned and undeveloped zones.
- Pass the Shuttle Ordinance as soon as you can afford it. The added depth it provides your zones reduces the need for Roads.
- Make sure your citywide Hospital system has more beds than patients. If your health care system, for any period, is unable to serve your population (fewer beds than sick Sims), it will bring down your city's Life Expectancy. This, in turn, reduces Education Quotient. Remember that the number of patients needing Hospital care *rises as pollution grows*. Thus, even if you keep population constant, your Hospitals may become inadequate due to increased pollution.

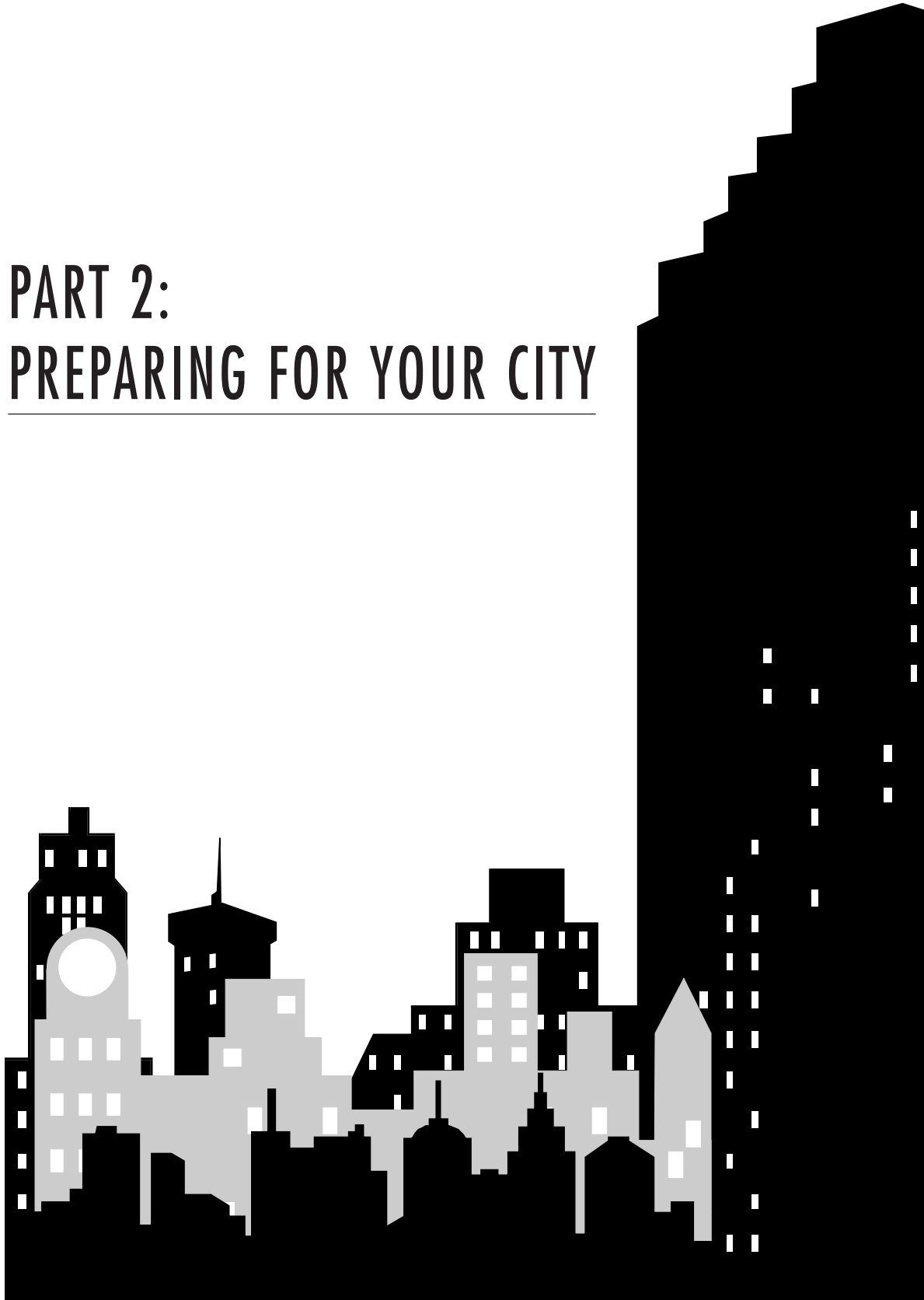


- Query your Schools, Colleges, Libraries, and Museums constantly to make sure they have enough capacity for your population. The Education Quotient can only increase over generations if the school system is properly funded and has enough capacity for your city's number of young.
- To build the Education Quotient, start building your school system early. Build your first School sometime before your city hits 10,000 Sims and add Libraries, Museums, and Colleges as soon as you can afford the building costs *and* the monthly maintenance fees. Colleges are very expensive.
- In every block of Residential zones, place at least one isolated block each of Commercial and Industrial. Not only will these token zones contribute to your Sims' trip success (see Chapter 18) but this trick reduces traffic and pollution (because the Sims can effectively walk to work). It also makes your zones look more realistic.
- In your city's early life, make deals to sell your excess power. That first Power Plant costs you the same whether you use 20 percent of it or 90 percent, so you might as well make some money. You'll probably have to control your growth a bit as the deal ends, but it's worth the extra income.
- Also early on, it's cheap to create excess water capacity (only \$300 per Pumping Station) so consider building extra pumps to accommodate a Neighbor Deal.
- For no-maintenance Neighbor Deals, create an enclave of isolated utilities dedicated solely to your neighbors. Don't connect these utilities to any other part of your city's network, but make sure there's enough capacity to handle your neighbor's needs.
- If low pollution is your aim, consider making deals to buy water and power and export your garbage. It's expensive, but the intangibles (lower pollution, higher Life Expectancy, etc.) pay for themselves.
- Take advantage of economic downtimes and pass the Homeless Shelter Ordinance (it's only available when unemployment is high). This Ordinance raises citywide land value and persists even if unemployment subsequently drops.
- Maintain enough Water Treatment Plants and Recycling Centers to accommodate your city's population.
- Keep Recycling Centers even if you're exporting all your garbage and plan to have no domestic Incinerators or Landfills. Recycling Centers reduce your output and, therefore, the expense of the export deal.
- After you've gotten the hang of the game, turn Disasters on. Don't be a wimp.
- You can pause during Disasters only by bringing up the City Options menu, the Save As menu, or the Budget menu. You won't be able to make any changes to your city, mind you, but you can at least stop the action to catch your breath.

- The best land value enhancer is water. Add as much water as possible in the Terrain Edit stage and build Residential and Commercial zones as close as possible to this naturally occurring water. Don't waste water-proximate tiles on Roads or non-tax-paying structures.
- It's expensive, but try to add water to any zone that isn't near it already. This involves creating Surface Water or (a cheaper method) Lowering Terrain down to the water table. Remember that if you Lower Terrain, you might demolish Water Pipes and Subway Rails below the surface.
- Farms are very nice to look at but require an inordinate amount of babysitting to keep them from switching to plain old Industry. They are appealing because they produce little pollution, but it takes massive numbers of Farm tiles to equal the job creation of even a small block of normal Industrial zones.
- Build lots of Parks and recreational Reward buildings. These structures enhance land value, absorb pollution, and allow your city to grow to higher populations. If you can't afford to create Surface Water everywhere, place Parks inside all Residential and Commercial zones.
- Don't build Airports until your city has grown substantially. When it is time, however, build only a few tiles (minimum size is  $5 \times 3$ ) but leave space for very extensive expansion.
- Don't build a Seaport too early either, unless you want to establish connection with an overseas neighbor. Build slowly (starting with the minimum  $1 \times 5$  shoreline zone) and gradually. Leave plenty of space for expansion.



# PART 2: PREPARING FOR YOUR CITY



This section should be the first stop for experienced *SimCity* players. Whether you're coming from *SimCity Classic* or *SimCity 2000* or have some experience with *SimCity 3000* and want to get more insight, this is where you begin.

This section takes you through the steps and issues you must consider as you begin your city. Understanding how to landscape, budget, and get information on your city are mandatory preparations for life in the mayor's office.

Likewise, the tightly linked concepts of zoning, demand, and development will be your constant guide from day one through your city's entire life.

We'll get to the nitty-gritty mechanics of running a city later. For now, learn a bit about how you can truly guide and learn from your city at the most fundamental levels.

# LANDSCAPING

No city, no matter how cosmopolitan, is purely a concrete jungle. Under all the steel and urban muscle lies a beating heart of earth, water, and flora. Though a thriving metropolis hides most of its organic foundation, its shape and direction are profoundly dictated by the contours below it.

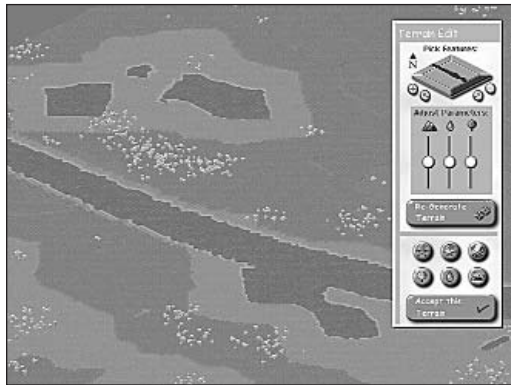


Fig. 7-1. The Terrain Editor—your landscaping toolbox. Note that this box appears differently in *SimCity 3000* Standard Edition.

Unlike most city planners, however, you have control over the landscape upon which your city is constructed. When you begin a new city from scratch, your first job is to tinker with the three basic elements of the landscape: mountains, water, and foliage.

Before your city is born, go to the pre-game Terrain Editor. If you accept what the city gods give you, you can simply select “Accept this Terrain” and get on with the zoning.

If, on the other hand, you want to do a little manicuring of the raw earth, this is your opportunity. You can, of course, play with the terrain after your city's genesis, but it'll cost you. Do it now, while it's free!



# PRE-CITY LANDSCAPING IN *SIMCITY 3000*

## THE CENTER OF YOUR LANDSCAPE



Fig. 7-2. This is your landscaping toolbox. Note that this box appears differently in *SimCity 3000* Standard Edition.



Use the Terrain Edit Tool to sculpt the raw earth into a thing of beauty. The six Landscaping Tools at the bottom of the palette, however, only appear in *SimCity 3000 Unlimited*.

Your first choice is to decide the basic configuration of your landmass. You can opt for *one* of the following:

- A river bisecting the land north to south,
- A river bisecting the land east to west,
- A lake in the center,
- A mountain in the center, or
- Nothing in the center.

## OCEANS

Next, choose how many ocean shorelines you desire. Select whether you wish to be separated from your neighbors by oceans on any, all, or no sides.

## OCEANS AND SEAPORTS

Should you choose no oceans, you *will* still be able to build Seaports on a river, conditions permitting. You *will not*, however, be able to build Seaports on a lake.



### CROSS REFERENCE

For more on Seaports and rivers, see Chapter 10.



**TIP**

Seaports provide valuable benefits to your city's Industrial inhabitants. Consider carefully whether you want to eliminate this option out of hand by switching off all oceans and selecting a mountain or lake in lieu of rivers.

## OCEANS AND NEIGHBORS

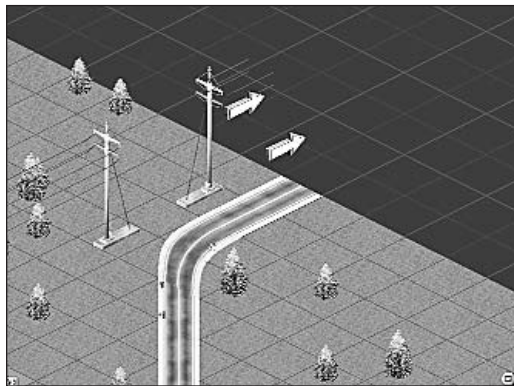


Fig. 7-3. An overland connection by wire and road.

You can make connections to your neighbors by land or sea. Sea connections come with plusses and minuses.

All cities have neighbors on each of their four borders. Making connections to these other cities provides valuable benefits and opportunities, so don't ignore them.



Fig. 7-4. A Seaport permits exportation of garbage to neighbors across the water.

- Making connections over water costs less than building even a simple Road connection (\$2,500). The most basic Seaport (1 × 5 tiles) costs you only \$1,250 (five Seaport tiles at \$250 per tile).
- Even small Seaports, however, produce considerable air and water pollution.
- Sea connections provide less Demand Cap Relief than Road connections.
- A sea connection only allows deals for garbage. Land connections allow deals for water (by pipe connection), power (by Power Line connection), and garbage (by Road, Rail, or Highway connection).



**CROSS REFERENCE**

For details on Seaports and Demand Cap Relief, see Chapter 11. For more information about Neighbor Connections, see Chapter 24.



## LAND FEATURE SLIDERS

Use the three Adjust Parameter Sliders to increase or decrease:

- Randomly placed mountains,
- Randomly placed water, and
- Randomly placed trees.

Go easy on the mountains. Although you'll get a land value boost from building on raised terrain, it's very expensive to groom a mountain once you've begun the simulation. Also, frankly, it's hard to foresee problems until you're actually laying down a Road.

When you've tinkered with all these elements, don't forget to press Re-generate Terrain to enact your changes. If you're playing *SimCity 3000 Unlimited*, remember to do this *before* using the Landscaping Tools.

You can't have enough water. Lots of water does inhibit building geographically symmetrical cities, but who wants that anyway? Don't forget that you can exploit inland water—no matter how small—as a water source by placing a Pumping Station on its shoreline. The more shorelines you have, the more ample your water supply. Also, either take the Land Value benefit and build around ponds and streams or (if you must) fill them in; the benefit to your tax base outweighs any inconvenience.

Go green! Start with lots of trees since the automatic demolition fees for them are negligible and they don't apply to the most frequent kinds of construction. Also, the removal of trees is not added to the cost of zoning or laying down transportation networks. If you want to watch every penny, then it's probably best to throttle back on the Tree Slider at this stage. Otherwise, go full foliage and plant clusters in planned high-value areas (on hills, near water, and in the City Center).

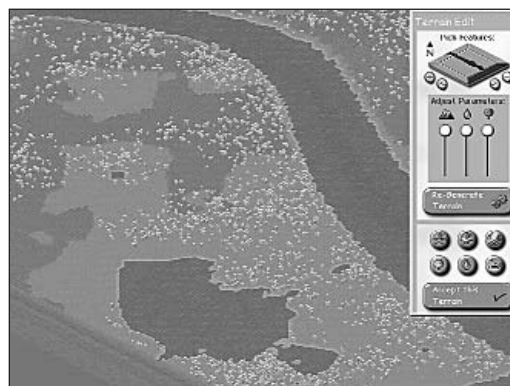


Fig. 7-5. Maximizing all three sliders yields rich landscapes like this one.



### CROSS REFERENCE

Carefully study the effects of terrain on land value in Chapter 13.

# PRE-CITY LANDSCAPING IN *SIMCITY 3000 UNLIMITED*

In *SimCity 3000 Unlimited*, you have several additional Landscaping Tools at your disposal.



The entire palate of in-Sim Landscaping Tools is available for your use in the Terrain Editor. With these tools, you can zoom and rotate your map to place (or in Maxis-speak, “plop”) water and trees wherever you like. You can tweak and smooth solid ground to your heart’s content.

Landscaping Tools include:



Lower Terrain



Raise Terrain



Level Terrain



Plant Trees



Create Surface Water



Demolish



## TIP

You can place trees of different densities on a single tile. Click once for one tree or up to six times for a dense little grove.

## TWEAKING TERRAIN TO SAVE MONEY

Remember that using these tools *now* is free of cost. Once you begin your city (by pressing “Accept this Terrain”), it’ll cost you some hard-earned Simoleons to fine-tune the ground beneath your Sims’ feet.



Once you've begun your city, the Landscape Tools will cost as follows:

- Plant Trees: \$3/per tree (up to six on one tile)
- Create Surface Water: \$150 per tile
- Lower Terrain: \$25 (base cost)
- Raise Terrain: \$25 (base cost)
- Level Terrain: Depends on tiles, but very expensive.

One particularly important bit of grooming can save you a lot of money but requires some foresight—look to a Seaport in your future. Choose a future site for this important structure and prepare it for effortless Seaport development.

- You'll need a *straight* shoreline of at least five tiles. Do more if you wish, while it's free.
- If there are any islands off your chosen shoreline (within five tiles), eliminate them now or they'll require costly flattening later.
- Make sure the shoreline is at or near sea level. It should be sand colored or pale in comparison with the surrounding terrain.

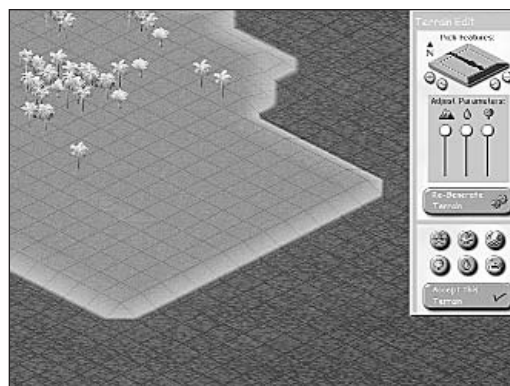


Fig. 7-6. Level the terrain on shorelines to prepare them for Seaports. Be sure the shoreline is straight and at least five tiles long, and ensure that no islands sit less than five tiles offshore.

## TWEAKING TERRAIN TO ENHANCE LAND VALUE

Land value is dramatically enhanced by location on high ground (relative to average terrain elevation) and proximity to water. If you want to take advantage of Elevation and Water Effects, start visualizing the shape of your city now and place high ground and small patches of water in strategic locations.

For example, look for promising plateaus. Level the tops with the Level Terrain Tool for easy development and ease the slopes for stress-free Road building.



Fig. 7-7. Smooth the tops of promising mountains, and don't forget to even out the sides so you can build Roads and pipes.





### TESTER TIP!

The easiest way to place water is to use the Lower Terrain Tool on a single tile. The water will take up fewer tiles but still offer the same land value benefit.

Then take the Level Terrain Tool and flatten out two of the edges of the watered area, leaving only four squares of water, and only their corners even look watered.

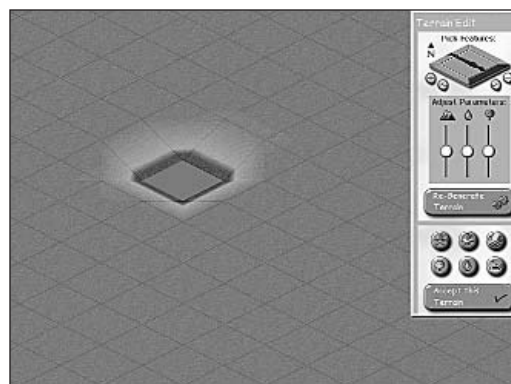


Fig. 7-8. Start by lowering the terrain until you hit water.

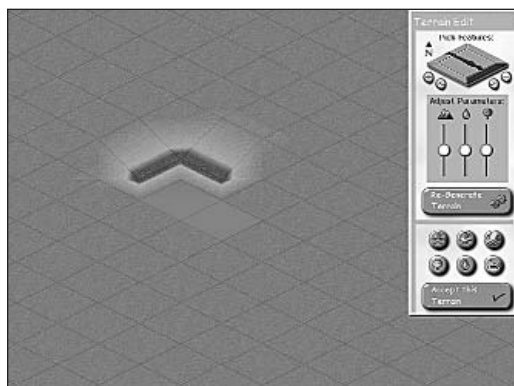


Fig. 7-9. Use the Level Terrain Tool to fill in one corner of the water pool.

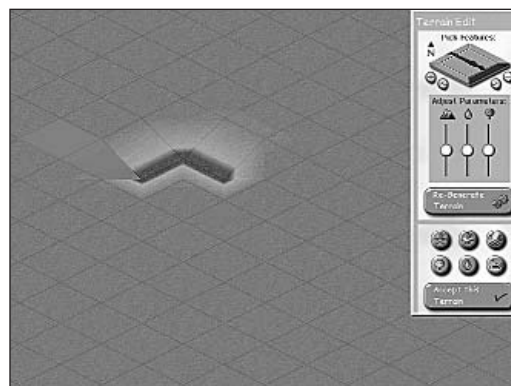


Fig. 7-10. Next, level one of the remaining corners.

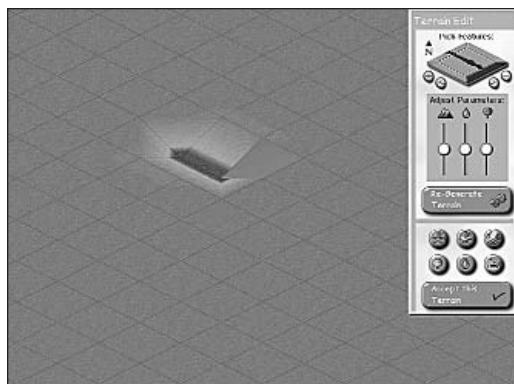


Fig. 7-11. And then, one more.

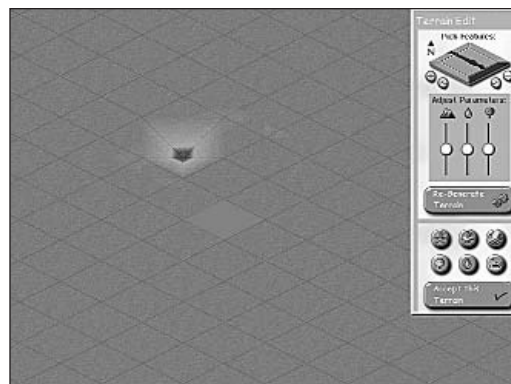


Fig. 7-12. The result is a free pool of land value-enhancing water that takes up only four tiles rather than the nine annexed by dropping one tile of Surface Water.



Once I've starting building my city, I prefer to just lower the terrain until I hit the water table rather than using Create Surface Water (it's cheaper). A warning: Unlike the Surface Water Tool, Lower Terrain destroys pipes and Subway Tunnels below.

—Dan Roisman, *Electronic Arts*

Drop bodies of big and small water (a matrix of single-tile mini-lakes does wonders for land value) all over the map.

Finally, visualize where you want to start building and where you want to end up after the first 50 years. Once you have an idea of how much land you'll consume, raise and/or heavily water the geographic center of this area to maximize land value. Doing so profoundly enhances your City Center Effect, a phenomenon that sets the baseline for all land value in your city.

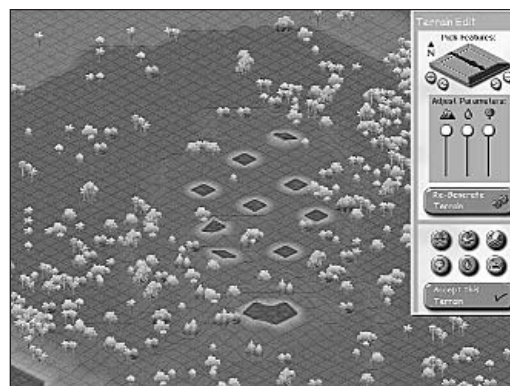


Fig. 7-13. Grace higher-than-average, densely treed ground with single tiles of water to later enhance the value of the structures you place around it.

7

LANDSCAPING



## CROSS REFERENCE

The City Center Effect is discussed in depth in Chapter 13.

Trees also provide a minor land value boost and perform a unique service: they actually *absorb* pollution. With these benefits, it's tempting to crank your Tree Slider to maximum and plop trees everywhere. Remember, however, that placing a municipal building (such as a School or Police Station) or infrastructure building (such as a Power Plant or Pumps) over a tree will *add a \$5 per-tree demolition fee* to the cost of the structure.

## ACCEPT TERRAIN

When you've sculpted the terrain to your liking, you're ready to build. Accept the terrain, and prepare to replace your gardening gloves with the dapper coat and tie worn by the Honorable Mayor of SimCity.

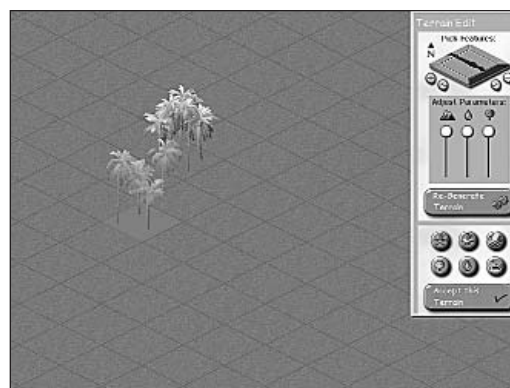


Fig. 7-14. Don't be content to plop down single trees. Instead, put down several on one tile to reduce pollution and increase land value.

# GETTING INFORMATION

If knowledge is power, then you have a Fusion Reactor of information at your fingertips as Mayor of SimCity. At any given moment, you can check the pulse of your city in dozens of ways. Want to know whether your finely planned public transportation system is having its desired impact on pollution? No problem. Wondering if your Police-Station-on-every-corner strategy has your city's criminals quaking in their boots? Piece of cake!

As Mayor, you won't last long if you ignore the wealth of information available to you. To maximize the value of this wealth of data and convert it into shrewd wisdom and vision, you'll need to know what your tools are and how best to exploit them. If you thirst for knowledge, read on.



## QUERY TOOL

Your most powerful source of information, the Query Tool, is also the easiest to use. Just point and click.



Fig. 8-1. The Query Tool changes depending on which feature you click.

The Query Tool is a dynamic inquiry system, providing information relevant to each kind of tile you choose to click. If you click on a Residential structure, you see information that could help you understand why your zones aren't developing well. Click next on a Hospital and you get data on your health care system's performance.

Our discussion of the Query Tool is organized in two ways:

- First, in this chapter, we describe each of the Query categories: what structures feature them (in parentheses), what numbers lay behind them, and what they mean to you as Mayor. Use this section as a glossary when inspecting any structure's Query box.
- Second, for those who wish to view things from another angle, we list the different types of structures and the Query categories they display in the appropriate chapters that follow. For example, for a listing of the categories for a Police Station, consult the Query section of Chapter 19, "Public Safety."



## QUERY CATEGORIES

Each type of structure or tile has its own Query box full of customized Query categories. Though the combinations are unique, many of the categories are the same. Consult this section to understand the significance of all the categories you encounter.

**Acres Systemwide** (Parks): Total number of park tiles.

**Age (Max)** (Utilities): Actual age and maximum age (in parentheses). When maximum age is reached, the structure will cease operation. Maximum age can vary from the norm by a random factor of 15 percent.

**Air Pollution:** Ranges from None to Hazardous. Local air pollution is the product of other buildings, traffic, and the Queried structure itself.

**Air Traffic** (Airports): Amount of traffic (rated from Light to Congested) passing through the Airport. This statistic is directly proportional to your city's Commercial population. If the Airport is rated Congested, you need more Airport tiles to accommodate your booming Commercial sector.

**Apples for the Teacher** (Schools): Reflects the local aura at an individual School site plus the number of pro-education Ordinances in effect.

**Attendance** (Museums): Number of Museums citywide times your school-aged population (ages 5 to 20).

**Average Wait for Parking Space** (GigaMall): A function of Commercial demand and traffic combined with the number of Sims over 65—they move kinda slow, doncha know.

**Benches in Use** (Parks): Unemployed population divvied among the number of Park structures. There are five benches per Park acre, so there's a maximum of five benches in use for each acre of Park.

**Boats Berthed** (Marinas): Reflects a combination of the city population, local aura, and number of Colleges and Universities in the city. This figure is divided evenly among the number of Marinas.

**Books in Circulation** (Library): Reflects your adult Sims' hunger for learning. The number represents total books systemwide times your city's EQ percent (percentile of total possible EQ), capped by population (you can't have more books in circulation than you have people to read them). The more books that are out, the smarter your Sims are—compare this number to Books Systemwide for a quick evaluation of your EQ.

**Books Systemwide** (Library): Reflects the quality of all Libraries in your city. It's the number of Libraries multiplied by 50,000 (the number of books at a fully funded Library) and then multiplied by the Educational Funding Percentage.

**Capacity Citywide** (Landfill): Total global Landfill capacity, measured in tons.

**Capacity** (College): Capacity per College: 7,500 students.

**Cells** (Jail): Number of cells in a Jail.

**Citywide Recycling Capacity** (Recycling Centers): Inadequate or Adequate. Related to population; one Recycling Center adequately serves 50,000 Sims. Capacity (and the center-to-population ratio) declines as the center ages.

**Civil Cases Annually** (Courthouse): Reflects a fixed percentage of your population who'll prove litigious in any circumstances, increased by EQ.

**Clean-up Cost** (Destroyed Structures): Cost in Simoleons to remove rubble so a tile can be rebuilt.

**Conditions** (Jail): Reflects the effectiveness of the Jail (from Good to Overcrowded) based on the ratio of inmates to cells.

**Connected to Coast** (Desalinization Plant): To function at all, Desalinization Plants must be located near sea level and *within one tile* of a seacoast.

**Connected to Pipe Network** (Water Treatment Plant): To function, Water Treatment Plants *must be connected to your water network* via a pipe. If they're isolated, they won't function at all.

**Connected to** (Neighbor Connections): Identifies the neighbor to which the link connects your city.

**Crime**: Ranges from None to Rampant. The local crime effect is displayed here and is affected by the intensity of police protection, crime produced in neighboring structures, and crime inherent in the building being Queried.

**Criminal Cases Annually** (Courthouse): The fixed percentage of your population times the global crime rate. Watch it go down when you create a new battalion of coppers.

**Current Disposal Capacity** (Garbage Disposal Structures): Shows a structure's actual ability to dispose of garbage (in tons per month), factoring in its age.

**Current Power Capacity** (Power Plants): Shows a structure's actual ability to produce power (in megawatt hours per month) factoring in its age.

**Current Water Capacity** (Water Structures): Shows structure's actual ability to produce water (in cubic meters per month), factoring in its age. Production is reduced by local water pollution or (for Pumping Stations) distances of more than one tile from a water source.

**Date Built**: Date constructed.

**Depth** (Water): Land elevation below sea level (measured in meters).

**Dinosaur Bones** (Museums): Factor of national population and current date.

**Drive-Through Weddings Performed** (Casino): Five percent of your young adult Sims (ages 16 through 22) will get married here. The number increases if your city is saddled with a low EQ. Go figure.





**Effect of Water Pollution** (Water Structures): Rated None to Unusable. Current capacity of water structures is affected by local water pollution; it tends to gum up the works and decrease efficiency. If the current capacity of your new structure is below maximum, look to this line for the most obvious explanation.

**Elevation:** Land elevation in terms of sea level. Measured in meters.

**Flammability:** Ranges from None to Extreme. Flammability is inherent in the building Queried, but is lowered if the building has a functioning water supply.

**Funding Cost** (Civic Structures): Cost (in Simoleons) per month to operate a structure. Factors into the monthly budget of the appropriate agency.

**Gophers** (Country Club): Reflects the number of Subway tiles.

**Grade** (Schools): Evaluation (A to F) reflecting citywide student-to-teacher ratio and the number of students over capacity.

**Grade** (Hospitals): Evaluation (A to F) reflecting the overall quality of your Hospitals city-wide as expressed in the doctor-to-patient ratio (reduced by the number of sick people untreated because of lack of beds).

**Grade** (Colleges): Evaluation (A to F) reflecting citywide student-to-professor ratio and the number of students over capacity.

**Grade** (Museums): Evaluation (A to F) reflecting the ratio of Museums to population aged 25 to 100. Optimum ratio is 1:85,000.

**Grade** (Libraries): Evaluation (A to F) reflecting the ratio of Libraries to population aged 25 to 100. Optimal ratio is 1:41,000.

**Inmates** (Jail): Number equals 56 percent of total arrests in precinct in which the Jail is located.

**Land Value:** Ranges from Very Low to Astronomical.

**License Plates Produced** (Prison): Take this number and multiply it by 1,000 to get the total population of SimNation. Unless you love math, it's easier to look up the national population in your graphs (see graph section later in this chapter).

**Little Leaguers** (Ballpark): Reflects usage of Ballparks. Represents a percentage (up to 25 percent) of Sim children 6–10 years old, distributed evenly among all Ballparks. This number is then reduced by the presence of local crime and pollution.

**Manure Donated to Parks** (Parks): Reflects aura and extent of your city's recycling efforts. Represents the inverse of the Zoo's local aura increased by the passage of the Trash Presort Ordinance (50 percent) and the number of Recycling Centers (25 percent increase per center).

**Maximum Disposal Capacity** (Garbage Disposal Structures): Displays structure's optimum ability to handle garbage, regardless of age, in tons per month. Can be increased only by passing certain Ordinances.

**Maximum Power Capacity** (Power Plants): Displays structure's optimum ability to produce power (in megawatt hours per month) regardless of age. Can be increased only by passing certain Ordinances.

**Maximum Water Capacity** (Water Structures): Displays structure's optimum ability to harness water (in cubic meters per month) regardless of age. Can be increased only by passing certain Ordinances.

**Membership Fees** (Country Club): A combination of number of Colleges and your Sims' collective EQ, plus a little profit.

**Miles of Red Tape** (City Hall): Equals number of Ordinances passed.

**Milk Containers Processed** (Recycling Centers): Reflection of your city's number of children ages zero to four.

**Monthly Donut Consumption** (Police Stations): Directly reflects Police Station's distance from the City Center, and local crime. Donut eating is, apparently, higher among suburban Police than among their downtown brethren and in precincts with low local crime (more time on their hands).

**Monthly Income** (Business Opportunities): Tells you how much a Business Opportunity structure is raking in for your city coffers.

**New Recruits** (Military Base): Reflects the number of Sims aged 18 through 25, divided by Life Expectancy.

**Number of Arrests** (Police Station): Reflects police effectiveness relative to number of crimes. Is affected by changes in police budget or crime factors of local buildings in the precinct.

**Number of Beds (Systemwide)** (Hospital): Reflects citywide Hospital capacity; 1,000 per Hospital.

**Number of Calls** (Fire Stations): Randomly generated percentage (120 to 150 percent) of number of fires. Reflects a random number of false alarms.

**Number of Crimes** (Police Station): Average of local crime factors for each building in a Police Station's precinct.

**Number of Desks (Systemwide)** (Schools): Represents the citywide capacity of the School system: 1,500 desks per school. Never let this number be less than number of students.

**Number of Doctors (Systemwide)** (Hospital): Reflects the effectiveness of your Hospitals. Represents the percentage of the population engaged in the medical profession (rises as population grows). Can be raised or lowered by Health Funding Percentage.

**Number of Eggs Thrown (Mayor's House):** Directly proportional to global aura/Approval Rating. The fewer eggs, the more you're loved.

**Number of Fires** (Fire Station): Average of local flammability factor for each building in a Fire Station's precinct.



**Number of Patients (Systemwide)** (Hospital): Reflects how well your health care system is serving the population. Represents a fixed percentage of your population assumed to be sick (grows with population).

**Number of Professors** (College): The ratio of a fixed percentage of the population in the professorial profession (grows with population) to the number of citywide Colleges. This figure can be affected by the Education budget.

**Number of Students (Systemwide)** (Schools): Total number of students citywide (ages 5 through 15).

**Number of Students** (Colleges): Total number of students citywide (ages 15 through 20).

**Number of Teachers (Systemwide)** (Schools): Reflects a fixed percentage of the population in the teaching profession (grows with population). This figure can be affected by the Education budget.

**On-Time Flights:** Reflects your Approval Rating and is based on the volume of air traffic. Never above 98 percent!

**Number of Pigeons** (Historic Statues): Directly proportional to number of Fire Stations, Jails, and Police Stations.

**Passengers Per Day** (Transit Stations): The number of Sims passing through a station. Check several stations to determine if one is being used at above- or below- average rates.

**Performance Rating** (Police Stations): Poor to Oppressive. Rating reflects the ratio of crimes to arrests.

**Performance Rating** (Fire Stations): Poor to Excellent. Rating reflects Fire Department funding.

**Place of Origin** (Landmarks): Real-world location of each Landmark.

**Pollution Generated:** None to Hazardous. Rating reflects structure's inherent air and water pollution factors. Doesn't reflect pollution from other structures.

**Powered:** Yes or No. Is the structure powered—within five tiles of an already powered tile? All Residential, Commercial, and Industrial zoned tiles require power to develop and will become abandoned if power is subsequently cut off. If Query is in reference to a Power Line, it informs you whether either end of the line is connected to (or within five tiles of) a powered tile or structure.



**Reason for Abandonment** (Abandoned Structures): Rating varies. This line only appears in *SimCity 3000 Unlimited*, but it tells you why your previously developed zones are being abandoned. If the simulation has recently determined the reason a given tile has been abandoned, this information appears in the "Reason for Abandonment" line. If the tile hasn't been polled recently, the line reads "Planets not aligned"—in other words, "I don't know yet." Check back in a game month if the reasons are still a mystery.





UNLIMITED  
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**Reason for Lack of Development** (Undeveloped Zones): Rating varies. This line only appears in *SimCity 3000 Unlimited*, but it tells you why your undeveloped zones haven't sprung to life. Often the reason is a lack of demand, power, or transportation access. Sometimes, this line reads "Lack of Chocolate Sprinkles." This is a way of saying "I don't know yet"—the simulation only surveys a fraction of tiles at a time and simply hasn't checked this one yet. Come back in a game month if the undeveloped state persists.

**Repair Cost** (Damaged Roads): Cost in Simoleons to restore a tile of Road to perfect condition.

**Researchers** (Medical Research Center): Number of Hospitals multiplied by EQ.

**Ships Saved** (Lighthouse): Number of Pumping Stations and Water Towers. Increased by Marinas and Seaports.

**Spots on Dalmatian** (Fire Station): Directly proportional to the land value of the Fire Station...for what it's worth.

**Surfers Clogging Intake** (Desalinization Plants): Directly proportional to the number of Schools and Colleges in the city. Crazy kids.

**Service Quality** (Transit Stations): Poor to Excellent. Rating of how willing your Sims are to ride your mass transit system of each type. Reflects funding level.

**Traffic/Rail Usage** (Road and Rail): None to Congested. Monthly measurement of traffic passing over the tile.

**Usage** (Landfills): Percentage indicating the amount of globally available Landfill capacity. This figure is averaged over all available Landfill tiles, citywide. If usage is 100 percent, refuse starts to show up in your Sims' lawns and pools. To combat this, you must zone more Landfill tiles, build garbage structures, or make a Neighbor Deal to export your filth.

**Usage** (Garbage Structures): Reveals actual garbage input in tons per month. If usage is equal to current capacity, you've run out of garbage disposal capacity and are probably seeing trash piling up (unless you have an export deal with a neighbor).

**Usage** (Power Structures): Reveals actual power demand in megawatt hours per month, averaged over all Power Plants. If usage is equal to current capacity, you've run out of power capacity. You're probably (unless you have a buy deal with a neighbor) experiencing brownouts and are risking a plant explosion by running your facilities at more than 100 percent capacity.

**Usage** (Water Structures): Reveals actual water demand in cubic meters per month, averaged over all Pumping Stations, Water Towers, and Desalinization Plants. If usage is equal to current capacity, you've run out of water supply capacity; unless you have a buy deal with a neighbor, you're probably experiencing shortages.



**Visitors** (Geyser Park): Reflects tourism from outside your city. To arrive at this figure, the number of connections to all four of your neighbors (via transportation, Power Line, pipe, or Seaport) is multiplied by 1,000 and then divided by your Global Pollution rate—tourists like a clean city.

**Water Pollution:** None to Hazardous. Local water pollution is a function of surrounding structures.

**Watered:** Yes or no. Is the structure watered—within seven tiles of an operating water structure or pipe? If in reference to a pipe, is it connected to either a water source (Pumping Station, Desalinization Plant, or Water Tower) or another watered pipe? Once watered, each individual pipe section will radiate water for seven tiles.

**Wild Llama Sightings** (Zoo): The total number of Park tiles plus Zoos.

**Zone Type:** Residential, Commercial, Industrial, Landfill, Seaport, or Airport.

## THE NEWS TICKER

Your second best source for information is the News Ticker that tirelessly scrolls along the bottom of your screen.



Fig. 8-2. The News Ticker keeps you apprised of everything you need to know.

Although you have a lot to pay attention to, it behooves you to watch it constantly for:

- Stories updating you on crucial city stats
- Introduction of new inventions
- Presentation of Rewards
- Premonitions of impending Disaster
- Alerts of Disasters (especially important if you have Auto Go To Disasters turned off)
- Offers of Business and Neighbor Deals
- Alerts for problems with your infrastructure or budget
- Notification of important Petitioners

Don't hesitate to click on the underlined text and find out what's in the news. Without the Ticker, several very important events might escape your attention—it would be a shame, for example, to be unaware that your Sims want to hold a parade in your honor.



## DATA MAPS

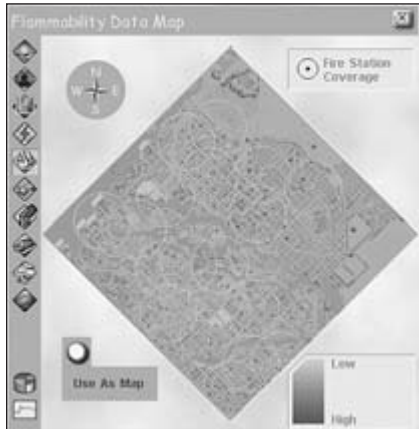


Fig. 8-3. Data Maps contain graphical representations of your most important information. Superimpose this information on your Navigation Map by pressing "Use as Map."

Your Data Maps provide a more elaborate way of evaluating your city. Each map shows you how a vital stat appears locally on your entire city.

Available to your data-hungry mind are Data Maps of:

- Aura
- Crime (includes Police Station locations and radii)
- Density
- Power
- Flammability (includes Fire Station locations and radii)
- Pollution
- Traffic and Transportation
- Water Supply
- Zones

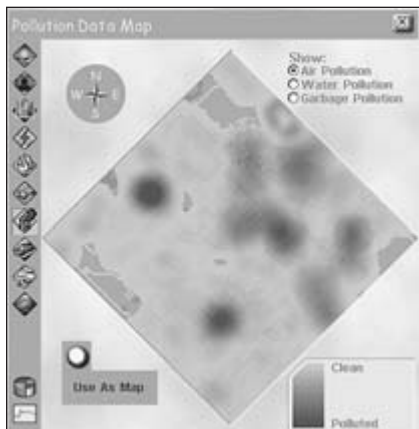


Fig. 8-4. This Data Map shows where your pollution is most concentrated.

You can even superimpose these maps on your Navigation Map, which is very useful when trying to space your Fire and Police Stations.

Many of these same categories are available in the Layers menu; you can look at them in map format rather than imposed directly on your city map.



## CHARTS

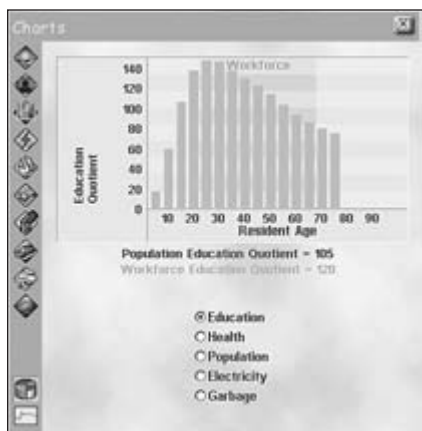


Fig. 8-5. Use your charts to get even deeper insights into your populace. Here, for instance, you can see that your efforts to keep your workforce highly educated are paying off.



## GRAPHS

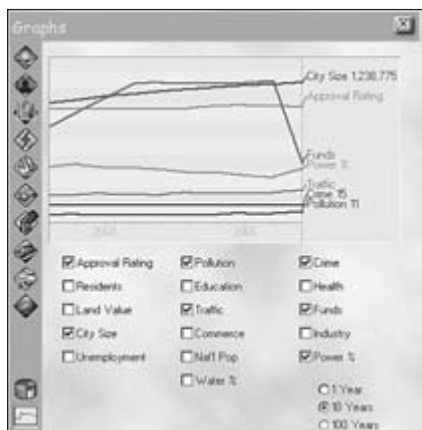


Fig. 8-6. View trends over 1, 10, and 100 years with this Graph Tool. View as many of the 16 lines as you like to see where your city has been, as well as where it's headed.

The selection of five charts (three bar and two pie charts) gives you insight into the following statistics:

- Education Quotient (EQ)
- Health: Life Expectancy (LE)
- Population: demographics by age
- Electricity: sources
- Garbage: destinations

Pay special attention to the charts that break down EQ and LE separately by general and workforce populations. There are different reasons to pay attention to both, but the state of your workforce population, in particular, is one of your top concerns.

These graphs track 16 different global statistics over time (1, 10, and 100 years). They include:

- Approval Rating
- Resident (Residential population)
- Land value
- City size
- Unemployment
- Pollution
- Education
- Traffic
- Commercial (Commercial population)
- National population
- Water percent (percent of total capacity used)

- Crime
- Health
- Funds
- Industry (Industrial population)
- Power percent (percent of total capacity used)

Look for trends as well as current status. Note that some graphs (such as land value) show only the level on the graph and not the precise figure. You must look to other sources to determine these values.



## LAYERS



Fig. 8-7. Layers allow you to view much of the same information from the Data Menu directly on your city map. You can also use Layers to hide certain types of structures and view your underground networks.

Layers allow you to adjust your view of the city. You can eliminate certain types of structures or see below the surface to pipes and Subway Tunnels. They also provide a powerful way to evaluate your city's local conditions. Switching to the City Layer View allows you to see the information superimposed on your landscape in lieu of structures.

Pick one of these categories at a time to see how your mayoral efforts are progressing:

- Aura
- Crime
- Density
- Electric Power
- Flammability
- Land value
- Pollution
- Traffic



# NEIGHBORS, BUDGET, ORDINANCES, AND MEETINGS

Each of these mechanisms permits you to focus on information relating to the several “hats” a mayor must don.

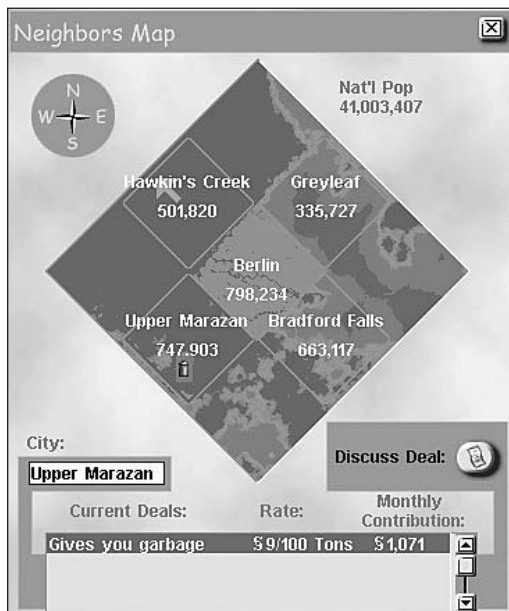


Fig. 8-8. Click on each neighbor to review any existing deals.



Fig. 8-9. Keep things balanced using the Budget window.



Fig. 8-10. Ordinances let you pick the laws you like and make them a reality with a click of your mouse.

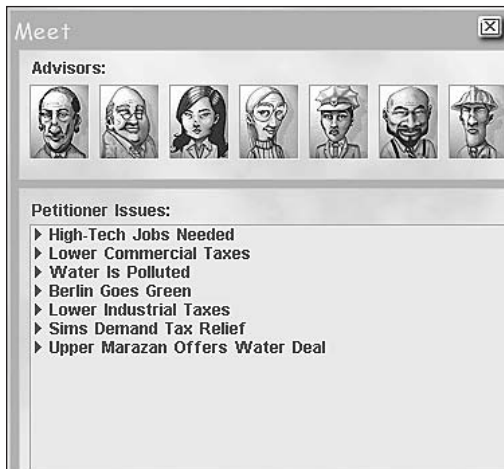


Fig. 8-11. Get some face time with your Advisors, neighbors, and ordinary Sims to find out what they want out of you.

Finally, enter the Meet window to put on the guise of friendly politician and caring ruler (with an endless array of Petitioners) or hard-nosed policy wonk with your team of trusted Advisors. These tools allow you to make policy and learn more about the world you've created. Make it part of your information-gathering routine to visit each and see what is going on in and around your mayoral nerve center.

## VISUAL AND AUDIO CLUES

Don't forget to use your own eyes and ears. Just zooming in and paying attention to what is going on in the streets of your little burg goes a surprisingly long way. Here are just a few examples about what you can learn from observing.

### TRAFFIC

The easiest way to locate traffic problems is to look at the streets. If traffic is heavy, you'll see a lot of cars. There's no need to check a chart to see that there's a problem.



Fig. 8-12. Lots of cars mean bad traffic. No charts or graphs are necessary to figure this one out.





## SIRENS AND ALARMS

If you hear frequent car alarms and other “sounds of wrongdoing,” chances are the area you’re peeking in on is rife with crime. Take this as a cue to review your Police coverage and budget.

## ABANDONED BUILDINGS



Fig. 8-13. If nobody's home, it means something's amiss. If entire blocks are like this, inspect your water and transportation systems.

An abandoned structure means something has gone wrong. Analyze surrounding conditions to narrow the field of possibilities.

## GARBAGE ON THE LAWN

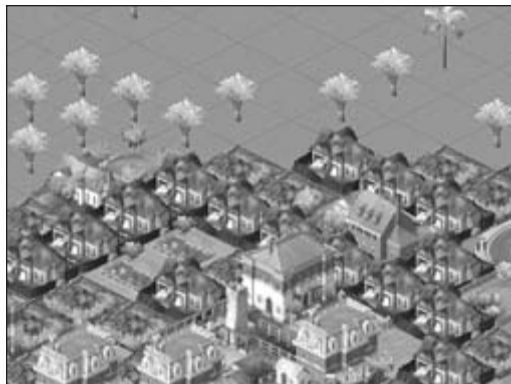


Fig. 8-14. Garbage on the lawn really stinks.

Piles of trash on tiles tell you that your garbage disposal facilities are inadequate. Build new means of emptying the trash or your Sims will start to flee.



# BUDGETING AND FINANCE

Keeping the money flowing in and out is, in the final analysis, your *most important* job as Mayor—if you (mis)manage to get \$100,000 in the red, you're automatically removed from office. In other words, if you can't manage the money, you lose.



## BUDGETING

The peephole into your city's finances is the Budget window. It can seem a bit daunting at first, but you must learn to read *behind* the numbers if you want your city to thrive over the centuries.



### NOTE

The mechanics of the Budgeting process is thoroughly covered in your *SimCity 3000 Unlimited* or *SimCity 3000* manual. This chapter highlights important issues and tools within the Budgeting process and provides the information and strategies you'll need to make astute choices with your public fisc.

| Budget                     |                                     | Expenditures           | Income               |                                     |
|----------------------------|-------------------------------------|------------------------|----------------------|-------------------------------------|
| 2000 Budget<br>(July 2000) | Adjust                              | Yr. To Date<br>Expense | Year End<br>Estimate | Meet<br>Advisor                     |
| Ordinances                 | <input checked="" type="checkbox"/> | \$ 40                  | \$ 56                | <input type="checkbox"/>            |
| Neighbor Deals             | <input checked="" type="checkbox"/> | \$ 401                 | \$ 797               | <input type="checkbox"/>            |
| Loans                      | <input checked="" type="checkbox"/> | \$ 0                   | \$ 0                 | <input type="checkbox"/>            |
| Education                  | <input type="checkbox"/>            | \$ 1,096               | \$ 1,792             | <input type="checkbox"/>            |
| Public Health              | <input type="checkbox"/>            | \$ 300                 | \$ 600               | <input type="checkbox"/>            |
| Fire                       | <input type="checkbox"/>            | \$ 432                 | \$ 864               | <input type="checkbox"/>            |
| Roads                      | <input type="checkbox"/>            | \$ 36                  | \$ 72                | <input type="checkbox"/>            |
| Police                     | <input type="checkbox"/>            | \$ 0                   | \$ 0                 | <input type="checkbox"/>            |
| Mass Transit               | <input type="checkbox"/>            | \$ 240                 | \$ 480               | <input type="checkbox"/>            |
| Year to Date Income        |                                     | \$ 4,405               | \$ 8,887             |                                     |
| Estimated Income           |                                     |                        | \$ 8,887             |                                     |
| Year to Date Expense       |                                     | \$ 1,353               | \$ 6,701             |                                     |
| Estimated Expense          |                                     |                        | \$ 6,701             |                                     |
| Year to Date Cash Flow     |                                     | \$ 1,102               | \$ 2,186             |                                     |
| Estimated Cash Flow        |                                     |                        | \$ 2,186             |                                     |
| Current Funds              |                                     |                        | \$ 10,323            |                                     |
| End of Year Funds          |                                     |                        | \$ 10,509            | <input checked="" type="checkbox"/> |

Fig. 9-1. Your Budget window

## INCOME

It's always more fun to deal with money coming in than money going out, so let's start with Income. The Income window lists all of your *potential* sources of revenue.

| Budget                     |                                     | Expenditures          | Income               |                                     |
|----------------------------|-------------------------------------|-----------------------|----------------------|-------------------------------------|
| 2000 Budget<br>(July 2000) | Adjust                              | Yr. To Date<br>Income | Year End<br>Estimate | Meet<br>Advisor                     |
| Ordinances                 | <input checked="" type="checkbox"/> | \$ 102                | \$ 204               | <input type="checkbox"/>            |
| Neighbor Deals             | <input checked="" type="checkbox"/> | \$ 0                  | \$ 0                 | <input type="checkbox"/>            |
| Business Deals             | <input checked="" type="checkbox"/> | \$ 2,100              | \$ 4,200             | <input type="checkbox"/>            |
| Transit Fares              | <input type="checkbox"/>            | \$ 40                 | \$ 80                | <input type="checkbox"/>            |
| Disaster Relief            | <input type="checkbox"/>            | \$ 0                  | \$ 0                 | <input type="checkbox"/>            |
| Residential Tax Rate       | <input type="checkbox"/>            | \$ 1,489              | \$ 2,977             | <input type="checkbox"/>            |
| Commercial Tax Rate        | <input type="checkbox"/>            | \$ 52                 | \$ 100               | <input type="checkbox"/>            |
| Industrial Tax Rate        | <input type="checkbox"/>            | \$ 674                | \$ 1,322             | <input type="checkbox"/>            |
| Year to Date Income        |                                     | \$ 4,405              | \$ 8,887             |                                     |
| Estimated Income           |                                     |                       | \$ 8,887             |                                     |
| Year to Date Expense       |                                     | \$ 1,353              | \$ 6,701             |                                     |
| Estimated Expense          |                                     |                       | \$ 6,701             |                                     |
| Year to Date Cash Flow     |                                     | \$ 1,102              | \$ 2,186             |                                     |
| Estimated Cash Flow        |                                     |                       | \$ 2,186             |                                     |
| Current Funds              |                                     |                       | \$ 10,323            |                                     |
| End of Year Funds          |                                     |                       | \$ 10,509            | <input checked="" type="checkbox"/> |

Fig. 9-2. The Income window

**TESTER TIP!**

There is a way to leave the game on overnight and come back to financial independence (i.e., wads of dough).

**Requirements:**

- Disasters off
- Neighbor Deals—buy water, power, and garbage service
- *No water, power, or garbage structures of your own*

**Summary:** If your city is moderately sized (~100K) and you are operating in the black, with the requirements above fulfilled, you'll come back in the morning to find a lot of Simoleons.

This trick can be used to boost EQ and HQ too, as long as there is an adequate number of schools, libraries, hospitals, etc.

—Mike Lawson, *Maxis*

Keep in mind that the left-hand column in the Income window is money actually collected so far this year and the right-hand column represents estimated Income for the current year, in other words, what your Income will be if nothing changes. If, for instance, you raise taxes or enact a new Ordinance, these figures will differ from previous estimates.

**ORDINANCES**

A handful of Ordinances generate rather than drain money. The incoming flow from these laws appears as the first line item in your Income ledger.

**NOTE**

All Ordinances that *cost* you money appear as a separate item on your Expenditures ledger (see below).

Keep these Ordinances in mind as good sources of nontax Income, but be mindful of their various negative effects.



Fig. 9-3. The Ordinances window



## CROSS REFERENCE

For a full discussion of Ordinances, see Chapter 23.

**Table 9-1. Income-producing Ordinances**

| <i>Ordinance</i>                | <i>Income Produced</i>                      | <i>Year Available</i> | <i>Prerequisites</i>                           | <i>Negative Effect</i>                     |
|---------------------------------|---|-----------------------|--|--|
| Industrial Pollutant Impact Fee | \$0.0004 per tile of dirty industry         | 1950                  | 500 developed Industrial tiles                 | Decreases (dirty) Industrial demand        |
| Industrial Waste Disposal Tax   | \$0.0005 per Commercial and Industrial tile | 1952                  | At least 3,000 Commercial and Industrial tiles | Decreases Industrial and Commercial demand |
| Legalized Gambling              | \$0.00025 per Sim                           | 1900                  | Population must exceed 1,000                   | Increases crime                            |
| Parking Fines                   | \$0.001 per Sim                             | 1900                  | None   | Decreases aura                             |



## NEIGHBOR DEALS

When you make a deal with a neighboring city, you can either pay them or have them pay you. This slot on the Income ledger is concerned with those deals by which the money flows from your neighbor to you. In other words, the Income ledger is concerned with deals to:

- Sell Water
- Sell Electricity
- Import Garbage



### TIP

**Pay extra special attention to your utilities' capacity when you have a sell deal in effect. If you are unable to meet your neighbors' needs, the deal will be terminated without warning and with a substantial penalty.**

Unlike Neighbor Deals that show up on the Expense side of the ledger, Income-producing deals bring in a fixed sum every month for the five-year term of the deal. This makes it very easy to project a deal's impact on your annual budget—the Year

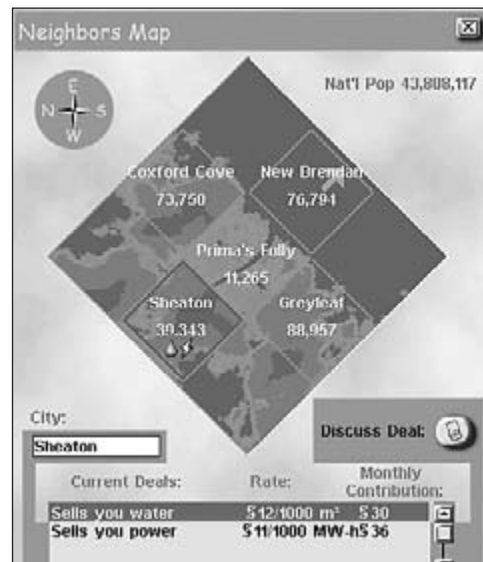


Fig. 9-4. The Neighbor window



End Estimate figure you see on this line is one of the only rock-solid numbers in that column. It won't change unless the deal ends, changes, or you somehow break it.



### CROSS REFERENCE

See Chapter 24 for complete details on Neighbor Deals.

## BUSINESS DEALS

Business Deals bring in the bucks, and all you have to do is put down a free building. No problem.

Oh, did they mention that these buildings carry an array of undesirable effects that will, for example, dramatically increase crime, belch pollution, and depress land value?

The money from Business Deals is not “free”—you'll have to expend money to offset their negative effects. Still, Business Deals can be worthwhile for the consistent and large Income flow they produce.

You'll probably be offered one of these four deals if your treasury falls below \$1,500 for more than 3 months.

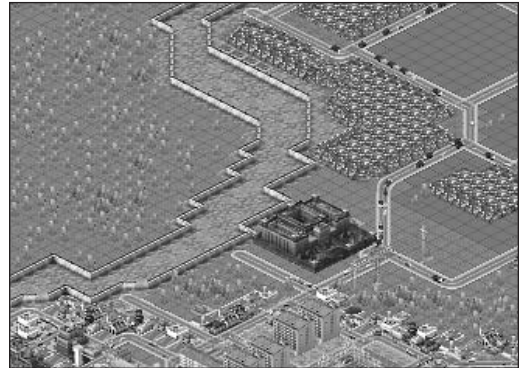


Fig. 9-5. This Maximum Security Prison is no one's idea of a good neighbor. That's why they pay you so much to host it.



### CROSS REFERENCE

See Chapter 25 for a full discussion of Business Deals.

**Table 9-2. Business Deals**

| <i>Deal</i>                  | <i>Monthly Income</i> | <i>Negative Effects</i>   |
|------------------------------|-----------------------|---|
| Maximum Security Prison      | \$250                 | Reduced land value  |
| GigaMall                     | \$300                 | Reduced land value, increased pollution   |
| Casino                       | \$350                 | Increased crime and pollution   |
| Toxic Waste Conversion Plant | \$400                 | Reduced land value, increased pollution, Toxic Cloud Disaster more likely ( <i>Unlimited Only</i> ) |

If you choose to accept a deal, plop one of the four Business Deal buildings (Casino, Prison, Toxic Waste Plant, or GigaMall) somewhere on your map, power it, and connect it to your city via Road. As long as those buildings are operating on your map, their inflow figures will appear on your Income ledger as a fixed sum every month.

## TRANSIT FARES

Once you establish your public transit system (Buses, Subways, or Trains), you'll begin to see money rolling in from the fares Sims pay to let the city do the driving.

Transit Fare Income is not a dramatic amount of money, but it can be significant. If you keep your system running at high quality, the money can also be very reliable. A city such as London, for example, can bring in around \$10,000 with its elaborate mass transit infrastructure.

Fare Income is calculated based on:

- 1. The number of trips on mass transit**
- 2. The number of tiles covered in each trip on mass transit**
- 3. The kind of mass transit used (Subway and Train fare is \$0.01 per tile and Bus fare is \$0.005 per tile.)**

Of course, you might also want to view this Income not as free money, but as an offset to your transit budget on the Expense side. Chances are, however, this positive cash flow will be dwarfed by even reasonable transit outlays—London, again for example, spends \$50,000 per year on its public transit system.

With that perspective in mind, you should have few qualms about relinquishing a piece of this small Income stream by passing the Subsidized Mass Transit Ordinance.

## SUBSIDIZED MASS TRANSIT ORDINANCE

Enacting this law (in or after 1900 and only if you have at least one form of mass transit), reduces your Transit Fare Income by 35 percent but carries several positive side effects for the money. First, Sims become 20 percent more likely to board public transit when they encounter it. This means less Road traffic, leading to reduced air pollution.

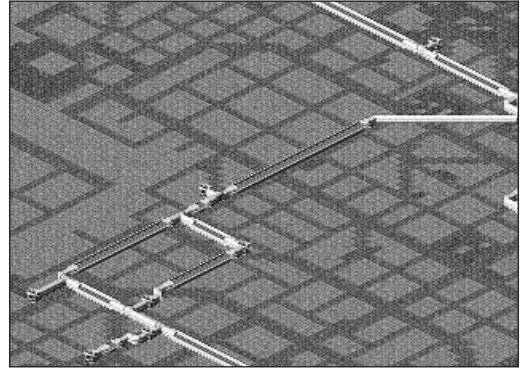


Fig. 9-6. Your Subways and Buses produce Income, but not enough to pay for themselves.



By coaxing your Sims out of their cars with the lure of lower Bus, Subway, and Train fares, you also increase their chances of successfully reaching their destinations. Ensuring successful travel is one important way to avoid building abandonment.



## CROSS REFERENCE

For more on transportation and the public transit system, see Chapter 18.

It quickly becomes clear that, for most cities, the Subsidized Mass Transit Ordinance is well worth the loss in revenue. Still, if you are dying for cash to get through a tough patch, ignore the Ordinance and don't despair if you can't grease the wheels of your mass transit engine just yet. Hoarding all the Transit Fare Income has saved more than one mayor!

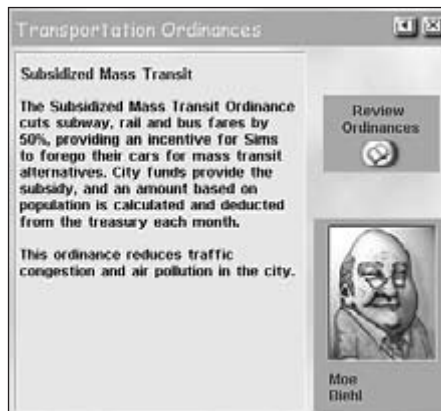


Fig. 9-7. The Subsidized Mass Transit Ordinance is a good deal for most mayors.



## DISASTER RELIEF

The federal government of SimNation becomes very generous when disaster strikes, even if it's you triggering the disasters. This generosity trickles down in the form of an automatic grant in Disaster Relief Income that shows up in the fifth line of your Income ledger.

When you've been struck by an Act of God and the danger has passed, your advisors will tally up the cost of the clean-up. This usually includes:

- Rebuilding cost for all civic buildings (Police Stations, Schools, etc.)
- Cost to clean up rubble-covered tiles, including zoned tiles
- Rebuilding cost of all infrastructure elements (Power Plants, Roads, Bridges, Subway Tunnels, etc.)

If the sum of these figures is more than \$500, the SimNation government will award you Disaster Relief.



Fig. 9-8. That's gonna hurt. Good thing the federal government will help.



The grant appears in your ledger one month after the disaster and equals 25 percent of total damage costs. If you were able to sound the Early Warning System in the allotted time, the grant amount increases to 35 percent.



### **CROSS REFERENCE**

To learn more about dealing with disasters and sounding the Early Warning System, see Chapter 26.

The Disaster Relief grant is unrestricted, so you may spend it however you like. You are under no obligation to rebuild.

## **TAXES**



### **CROSS REFERENCE**

For more on taxes and demand, see Chapter 11.

Tinkering with taxes is tricky business. We'll go into far greater detail about taxes shortly, but for now consider this: Tax rates directly impact demand. Depending on the population of your city, raising or lowering taxes will have some kind of effect on demand for your Residential, Commercial, and Industrial zones.

## **HOW TAXES ARE CALCULATED**

Taxes are calculated by the following formula:

**revenue = tax rate × population × average land value × tax transmogrifier**

The "tax transmogrifier" is a zone-specific factor. The applicable transmogrifiers are:

- Residential: §0.0035
- Commercial: §0.0045
- Industrial: §0.005

There is a minimum average land value for tax purposes. If a city's average land value is rated below this minimum, it will be raised to this figure for tax calculations.

**TIP**

Three elements under your control enter into calculation of tax revenue: tax rate, population, and land value.

Sometimes, lowering taxes can actually generate more money than raising them. If, by lowering taxes, you can encourage enough Sims to move into your burg, you may raise the population enough to equal or exceed your previous revenue levels.

You can also increase tax revenue by boosting land values. This is the most stable, but most difficult, route to financial independence.

The effect on demand changes as population grows. Note that the “No Effect Rate” is the tax rate that exerts no influence on demand.

**Table 9-3. Effect of Tax Rates on Demand—Generalities**

| <i>Population</i>  | <i>Low Taxes</i>                  | <i>High Taxes</i>                           | <i>No Effect Rate</i> |
|--------------------|-----------------------------------|---|-----------------------|
| 0–40,000           | (0–8%) dramatic positive effect   | (10–22%) very minor effects                 | 9%                    |
| 40,000–80,000      | (0–6%) moderate positive effect   | (8–22%) heightened but still tepid effect   | 7%                    |
| 80,000–160,000     | (0–6%) minor positive effect      | (8–22%) strong negative effect              | 7%                    |
| 160,000–240,000    | (0–5%) negligible positive effect | (7–22%) dramatic negative effect            | 6%                    |
| 240,000 and higher | (0–4%) minimal positive effect    | (6–22%) instantaneous and calamitous effect | 5%                    |

With these considerations in mind, you can freely and wisely use tax rates to regulate demand for your zones. If you wish to encourage demand, lower tax rates accordingly. If you want to slow things down, raise taxes in the appropriate sector.

Don't be surprised, however, if your tax tinkering has little or, often, the opposite effect you intend. Remember, demand is impacted by factors other than taxes. Most notably, the supply of one type of zone directly impacts demand for another kind.



For example, you cannot increase demand for Commercial zones while containing Residential demand. Low taxes on Commercial zones may, in theory, attract new Commercial Sims but they won't actually move in if there isn't sufficient Residential population (depressed by high Residential tax rates) to provide jobs and customers.

## SUMMARY

Use various sources of Income to turn your city into an urban success story. Remember, however, that the only stream of Income that has no ill side effects is moderate (No Effect) tax rates on well-populated, high average land value–zoned property. Every other line in the Income ledger helps, but should never be totally relied upon for the long term.



## EXPENDITURES

You must post all of your Expenditures against your Income. It seems elementary but it should be said: Your Expenditures must be equal to or less than your Income to keep money in your treasury. If you perpetually operate at a deficit, you'll eventually have an empty treasury, unable to spend new money to counteract further debt.



### TIP

**Sure you can take out Loans when your treasury dips below zero but, in practice, adding extra Expenditures in the form of debt payments makes turning a profit extremely difficult. Better to get out of the hole with moderate Departmental cuts (+70 percent), tax increases, or Income-generating Ordinances.**

| Budget                   |                                     | Expenditures       | Income            |
|--------------------------|-------------------------------------|--------------------|-------------------|
| 2007 Budget              | Adjust                              | Yr To Date Expense | Year End Estimate |
| February 2007            |                                     |                    |                   |
| Ordinances               | <input checked="" type="checkbox"/> | \$ 3,796           | \$ 45,552         |
| Neighbor Deals           | <input checked="" type="checkbox"/> | \$ 0               | \$ 0              |
| Loans                    | <input checked="" type="checkbox"/> | \$ 0               | \$ 0              |
| Education                | <input type="checkbox"/>            | \$ 2,796           | \$ 21,504         |
| Public Health            | <input type="checkbox"/>            | \$ 1,403           | \$ 8,758          |
| Fire                     | <input type="checkbox"/>            | \$ 621             | \$ 7,288          |
| Roads                    | <input type="checkbox"/>            | \$ 910             | \$ 3,600          |
| Police                   | <input type="checkbox"/>            | \$ 1,483           | \$ 17,455         |
| Mass Transit             | <input type="checkbox"/>            | \$ 1,363           | \$ 8,707          |
| Year to Date Income      |                                     | \$ 12,695          | \$ 82,340         |
| Estimated Income         |                                     |                    |                   |
| Year to Date Expense     |                                     | \$ 12,438          | \$ 82,667         |
| Estimated Expense        |                                     |                    |                   |
| Short Financial Advisor: |                                     |                    |                   |
| Year to Date Cash Flow   |                                     | \$ 257             | \$ 3,673          |
| Estimated Cash Flow      |                                     |                    |                   |
| Current Funds            |                                     |                    | \$ 107,006        |
| End of Year Funds        |                                     |                    | \$ 126,679        |

Fig. 9-9. Expenditure window

One way to ensure this correct financial balance is to raise more money on your Income ledger. That, however, may not always be possible or even preferable. Often, you will achieve your budgetary goals by altering your Expenditures instead.

Keep in mind that the left-hand column is money actually spent so far this year and the right-hand column in this window represents *estimated* costs for the current year—what your costs will be if nothing changes. If, for instance, you add a Police Department or enact a new Ordinance, these figures will change from previous estimates.



## ORDINANCES

Most Ordinances, too many to list here, cost your treasury a certain amount of money on a monthly basis.



### CROSS REFERENCE

Consult Chapter 23 for full details on Ordinances.

Often these amounts are based on population or some other factor that scales them to jibe with the benefits and obligations created by an Ordinance. For example, the Tourist Promotion Ordinance costs your city \$0.23 per Sim or \$23 per 1,000 Sims in exchange for its positive impact on Commercial demand and its negative burden on traffic.

The total for all Ordinances that cost your treasury appears on your Expenditures ledger.



### NOTE

The handful of Ordinances that generate money appear as an independent line item on the Income ledger. See above.



## NEIGHBOR DEALS

You can make deals with any of your four neighboring mayors (conditions permitting) that cost you a variable monthly fee in return for a service. Such deals allow you to:

- Buy Water
- Buy Electricity
- Export Garbage

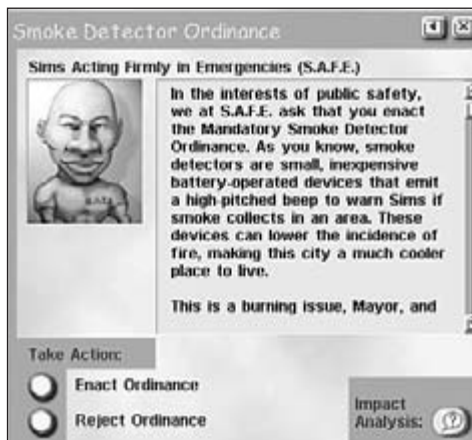


Fig. 9-10. A Petitioner says "There ought to be a law."



Fig. 9-11. A neighbor offers a deal.

Unlike deals to sell (where you are receiving money from a neighbor), costs of Neighbor Deals to buy are variable and unpredictable. The estimates that appear on your ledger should, therefore be taken with a big grain of sea salt.

Though the monthly charge is uncertain, there are elements of a buy deal that you know for sure:

1. **The term of the deal (always five years):** Allows you to know how long you are bound to the deal rate and when you can terminate the deal without penalty.
2. **The rate for the deal:** This charge per unit lets you know how much you're paying for your neighbor's services. If you can determine how much you're buying, you can make a reasonably accurate short-term cost estimate.
3. **The minimum charge:** If, in a given month, you don't require the services for which you've contracted (i.e., your Power Plants can handle your electricity load by themselves), you still pay a minimum charge to your neighbor. This gives you a baseline for how much the deal will cost.



## CROSS REFERENCE

See Chapter 24 for complete details on Neighbor Deals.

With this information, observe how much a buy deal is costing you and generally predict what effects continued growth will have on this monthly obligation.

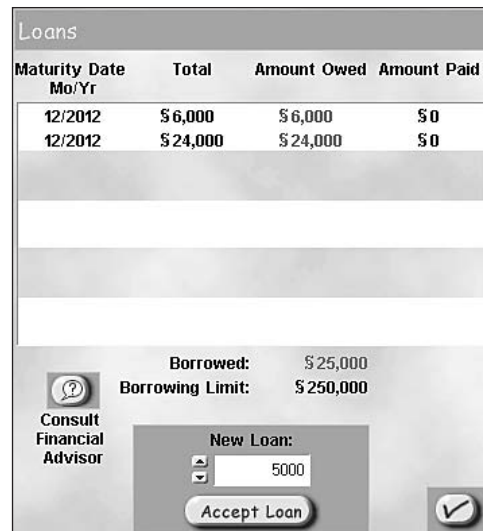
# LOANS

If you need a fast infusion of cash, whatever the reason, Loans are the way to get it. For a hefty but simple interest charge, you get whatever stack of money you wish in exchange for a promise to pay it back in even payments over 10 years.

The sum of all Loan payments appears as a line item on your Expenditures ledger.

When you accept a Loan, the interest is added immediately and payments are calculated. For a \$10,000 loan, for example, total interest would be \$2,000 ( $\$10,000 \times 20$  percent) and your annual payments would be \$1,200 consisting of:

- 1/10th the amount borrowed (\$1,000)
- 1/10th the amount of the interest (\$200)



| Maturity Date Mo/Yr | Total    | Amount Owed | Amount Paid |
|---------------------|----------|-------------|-------------|
| 12/2012             | \$6,000  | \$6,000     | \$0         |
| 12/2012             | \$24,000 | \$24,000    | \$0         |

Borrowed: \$25,000  
Borrowing Limit: \$250,000

Consult Financial Advisor

New Loan: 5000

Accept Loan

Fig. 9-12. The Loan window



## DEPARTMENTAL BUDGETS

Every Department in your city government has an annual budget, a fixed sum set aside to run that Department's services for that year. The Departmental budget is divided as follows:

- Education (Schools, Colleges, Libraries, and Museums)
- Public Health (Hospitals)
- Fire (Fire Stations)
- Roads (Road, Bridge, Tunnel, and Highway Maintenance)
- Police (Police and Jails)
- Mass Transit (Bus, Subway, and Train)

Each Department's budget is represented by a funding slider that ranges from 0 percent funding to 120 percent. All sliders are, by default, set at 100 percent funding.

Full (100 percent) funding (the shaded area on the sliders) represents the amount of cash needed to run and maintain each structure under the control of the Department. If, for example, you add the operating costs of all Police Stations and Jails, it will equal 100 percent funding for the Police budget.

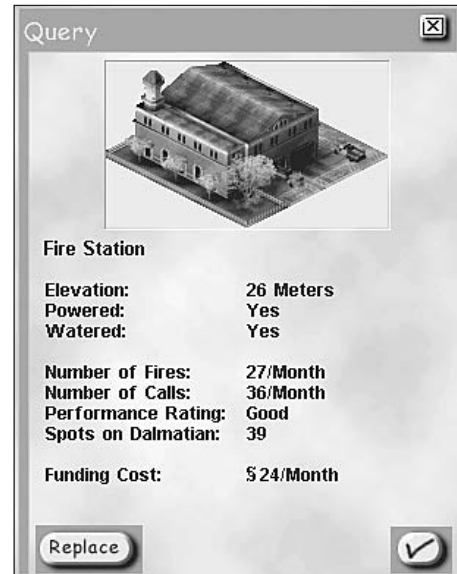


Fig. 9-13. The Query window shows funding on a per-building basis.

**Table 9-4. Optimal (100 Percent) Monthly Funding for Departmental Structures**

| <i>Structure</i> | <i>Department</i> | <i>Monthly Funding Cost</i> | <i>Annual Cost</i> |
|------------------|-------------------|-----------------------------|--------------------|
| College          | Education         | \$125                       | \$1,500            |
| Library          | Education         | \$30                        | \$360              |
| Museum           | Education         | \$75                        | \$900              |
| School           | Education         | \$30                        | \$360              |
| Fire Station     | Fire              | \$30                        | \$360              |
| Bus Stop         | Mass Transit      | \$5                         | \$60               |
| Train Station    | Mass Transit      | \$10                        | \$120              |
| Train            | Mass Transit      | \$0.10                      | \$12               |

*Continued on next page*

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| <b>Structure</b>        | <b>Department</b> | <b>Monthly Funding Cost</b> | <b>Annual Cost</b>     |
|-------------------------|-------------------|-----------------------------|------------------------|
| Subway Station          | Mass Transit      | \$10                        | \$120                  |
| Subway-to-Train Station | Mass Transit      | \$10                        | \$120                  |
| Subway Tunnel           | Mass Transit      | \$0.20/tile                 | \$12/tile (rounded up) |
| Jail                    | Police            | \$75                        | \$900                  |
| Police Station          | Police            | \$30                        | \$360                  |
| Hospital                | Public Health     | \$50                        | \$600                  |
| Highway                 | Roads             | \$0.30/tile                 | \$12/tile (rounded up) |
| Road                    | Roads             | \$0.20/tile                 | \$12/tile (rounded up) |

Every Department can function perfectly well at full funding, though there are benefits to going above and beyond. Underfunding, however, is a dangerous game and should be undertaken only in the most dire circumstances.

## OVERFUNDING

Nothing wrong with overfunding, right? Not exactly. You may not realize that it can be a waste of money.



### **CROSS REFERENCE**

Consult the applicable Departmental chapters for specifics on the effects of overfunding.

**Table 9-5. Overfunding Effects**

| <b>Department</b> | <b>101–110% Funding</b>   | <b>111–120% Funding</b>  |
|-------------------|---|--|
| Education         | Increases efficiency  | No effect  |
| Public Health     | Increases efficiency  | No effect  |
| Fire              | Increases radius of coverage. No effect                                     | No effect  |
| Roads             | Speeds repair of damaged Roads.<br>If you have no damaged Roads, no effect. | No effect  |
| Police            | Increases radius of coverage. No effect                                     | Too much overfunding can contribute to Police being regarded as “oppressive,” resulting in lowering of aura. |
| Mass Transit      | No effect   | No effect  |



## UNDERFUNDING AND STRIKES

In times of trouble, you *can* underfund any or all of your agencies to balance your budget. There is, however, a price to pay.



### CROSS REFERENCE

Consult the applicable Departmental chapters for specifics on the effects of underfunding and strikes.

For each underfunded Department, you'll see a decrease in efficiency and/or coverage. For example, your Police and Fire coverage will diminish, covering a smaller area. Your Roads will become damaged and potholed. In the end, the cost of underfunding may outweigh the bottom-line savings you intend.

By lowering the funding slider you also face a risk of a strike in any underfunded Department (except Roads). This probability rises the longer your Departments go without the optimum budget.

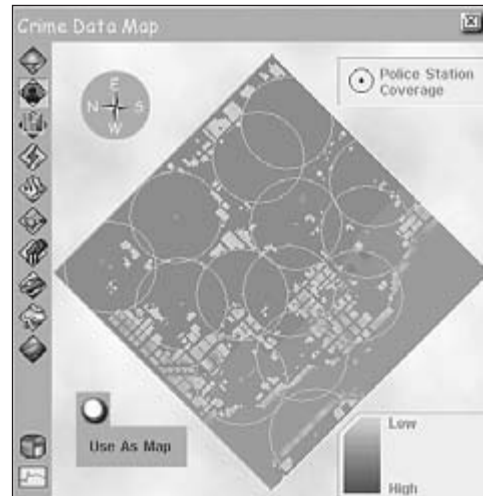


Fig. 9-14. Your Police and Fire radii in these Data Maps will shrink when a strike is in effect.

**Table 9-6. Strike Causes and Effects**

| <i>Department</i> | <i>Strike Causes</i>                                   | <i>Strike Effects</i>                         |
|-------------------|--|---|
| Education         | Funding below 70% and/or Grade C or below              | Schools and College operate at 20% efficiency |
| Public Health     | Funding below 70% and/or Grade C or below              | Hospitals operate at 20% efficiency           |
| Fire              | Funding below 70% and citywide flammability above 100% | Fire Stations operate at 20% efficiency       |
| Roads             | N/A  | N/A   |
| Police            | Funding below 70% and citywide crime above 20%         | Police Stations operate at 20% efficiency.    |
| Mass Transit      | Funding below 70%                                      | Total shutdown of all mass transit networks.  |

To end a strike, you have three options:

- Restore funding levels to 100 percent.
- Approve 12 percent raises proposed by the petitioners (automatically raises funding to 112 percent).
- Wait it out until workers return to the job—length varies by Department.
- Fire everyone by demolishing all buildings in the striking Department—a bit of an over-reaction.

## SUMMARY

If you are unable to balance your budget with taxes or some of the least damaging alternative Income sources, your next step should be to analyze your Expenditures.

The most obvious tactic is to throttle down your Departmental budgets. You can safely reduce funding of all Departments (except Roads) to 71 percent with no worry of provoking a strike. You *will* see substantial degradation in services and benefits during any under-funding but those may be acceptable losses.

*Do not lower the Road Department's budget below 100 percent!* The inconvenience and expense of repairing your Roads and the large scale abandonment usually caused by pothole-riddled Roads are not worth the small savings.

You can also close some Subway and Train Stations by demolishing them. It's a small help, but not one to be ignored.

If you are buying power or water from or exporting your garbage to a neighbor, consider adding facilities of your own to reduce your obligation. You'll still have to pay a minimum (or a penalty if you decide to break the deal entirely), but it may save considerable Simoleons.

Finally, cancel all but the most essential Ordinances. You can always revive them when good times return.





# ZONING

As you know by now, you as Mayor don't actually build your city. Your job is to provide management, infrastructure (power, water, and garbage service), transportation, and basic services (Police, Fire, Schools, etc.).



## NOTE

A note on structure: The concepts of zoning, demand, and development are intricately intertwined. To understand the tricks and techniques of zoning, you must first understand how the choices you make in zoning shape and bind subsequent demand and development. To understand demand and development, however, you have to understand zoning. Such circular explanations are understandably confusing.

The clearest way to digest these topics, then, is in the order they occur in the simulation. First, you lay down a zone, then demand dictates if the zone can be developed, then the rules of development kick in and decide whether and what to build.

You will find considerable overlap and repetition in this trilogy of chapters, but rest assured this is only done for the sake of clarity.

For all other buildings (those in which your Sims live, work, and shop) your function is to decide what kind of buildings you want to see and how densely and in what location you want them built. This is called "zoning" and it allows you to shape and mold your city while leaving it to your Sims to decide precisely what and where to build.



## NOTE

The beauty and aesthetics of your city, and how it looks from distant zooms, are principally factors of how you've laid out your zones (with a bow to Roads and civic structures). Don't get so tied up with the numbers that you forget to sculpt something beautiful.



Fig. 10-1. Zoning is as much about creating efficiency as beauty and grandeur.



Zoning enables you to control the growth of your city by satisfying or denying your Sims' demand for more zoned real estate. If you want your little hamlet to become something more, you can follow the ebbs and flows of your Sims' demand for more zones or, if you want to grow gradually, you can limit the availability of zoned tiles and work to cool and balance demand.

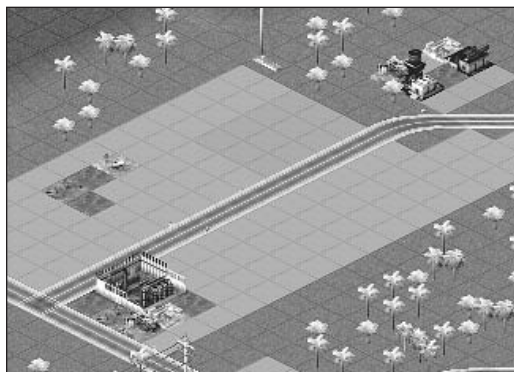


Fig. 10-3. Construction begins instantly.

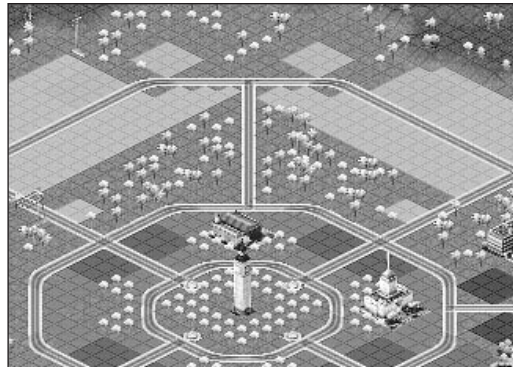


Fig. 10-2. If you want to keep your city small, start with smart zoning.

Once an area is zoned and all required services are provided, the Sims will begin development if conditions permit. What they build is, technically, up to them, but you can guide them with your choices of zone and density.



## NOTE

Later we'll get into the role of land value and how it controls what is built on your zones. For now, however, we'll focus on laying the groundwork on which the concepts of demand, development, and land value are based.

# KINDS OF ZONES

There are seven types of zones you can lay down:

- Residential
- Commercial
- Industrial
- Agricultural (not really its own zone type)
- Landfill
- Seaport
- Airport

**NOTE**

Strictly speaking, the Agriculture zone is just a light density Industrial zone that follows a tightly defined set of rules. You can't really "zone for agriculture." We'll discuss how and why to set up Farms later.

Suffice it to say for now that Agricultural zones behave more like so-called "Specialized zones," such as Airports and Seaports, but are subject to the demand forces that affect Industrial zones.

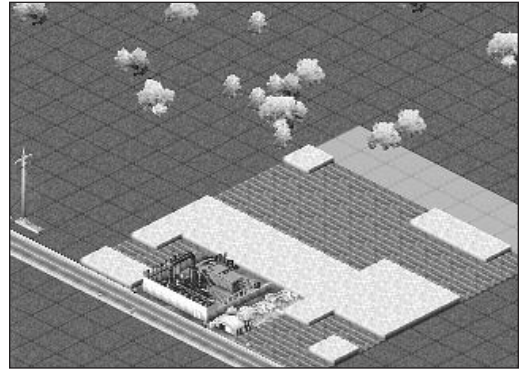


Fig. 10-4. The Agricultural zone is really just a light density Industrial zone with some rigid conditions.

## ZONE CLASSES

Among the seven zone types, there are two classes, each with different characteristics:

- RCI zones (Residential, Commercial, and Industrial)
- Specialized zones (Landfill, Seaport, Airport, and—sort of—Agriculture)

The fundamental differences between these classes are:

**Demand:** RCI zones are directly linked to demand in that they both create demand (for other zone types) and satisfy demand (for their own zone type). Specialized zones are not so linked to demand.

**Layout:** Specialty zones must abide by strict rules such as minimum size requirements, direct transportation access, and various landscape conformities. RCI zones also have rules, but beyond indirect transportation access and power, you're free to build RCI zones any way you please.

**CROSS REFERENCE**

Seaports and Airports actually have an indirect impact on demand, but that's not relevant here. See "Demand Cap Relief" in Chapter 12.

# RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL ZONES (RCI)

A vast majority of the time, when we discuss “zoning” it’s RCI zoning we’re speaking of. Though the Specialized zones are important, RCI zones are the beating heart of this simulation—everything revolves around improving and nurturing your Residential, Commercial, and Industrial zones.



## NOTE

Consult your *SimCity 3000* manual for the basic mechanics of RCI Zoning.

## ZONING BALANCE

Urban success is achieved by keeping a proper balance between your three basic zone types. What that balance is at any given period of gameplay is, however, a moving target.

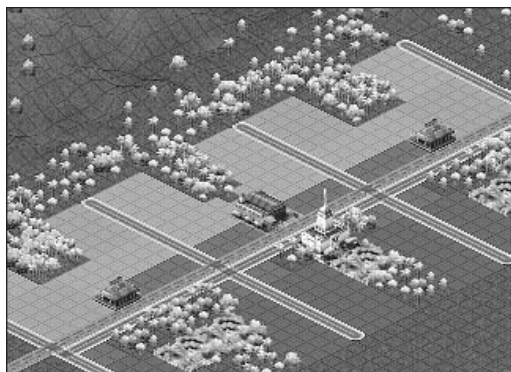


Fig. 10-5. Maintaining balance is easy when you only have a few zoned tiles.

## BALANCING RESIDENTIAL WITH COMMERCIAL AND INDUSTRIAL ZONES

In general, the number of map tiles zoned Residential should be equal to the number of Commercial and Industrial tiles combined. Or, as in this simple formula:

$$R = C + I$$

There is certainly no need to keep a running tally of your zones to achieve this balance. With some experience, you’ll be able to observe it just by looking at a map and several informational tools (the Zones Data Map, for instance). You’re welcome to count all those little squares and remember how many of each density you’ve dropped, but I want to believe you have better things to do...like considering why this balance is necessary. Understanding this requires a gross simplification of some complex relationships:

- Industrial zones exist to make things that people and businesses want to buy. Customers for industry exist both within your city and outside its borders.



- To function, Industrial zones need a Residential population to supply a workforce and customer base.
- Commercial zones exist to provide goods and services to people both inside and (to a lesser extent) outside your city.
- Like Industrial zones, Commercial zones require a Residential population to serve as its workforce and customers.
- Residential zones exist to give a home to every family whose members work in your Industrial and Commercial zones.
- To function, Residential zones demand sufficiently sized Industrial and Commercial zones to supply adequate jobs. If the jobs dry up, so do the Residential zones.

As this list illustrates, Residential zoning depends on and grows from both Industrial and Commercial zones, while Industrial and Commercial zones are tied to Residential zones (and, incidentally, the outside world), but not each other.

Hence the formula:  $R = C + I$ . If these general proportions are not maintained, demand will be severely thrown off, swinging wildly in response to any effort to settle it back into its normal patterns.



### TIP

Early in a city's life, it seems especially important to maintain this balance. Build medium- to small-sized clusters of each kind of zone (low density only, because they're cheaper and can only contain one density) and keep the *clusters* in the proper proportions ( $R = C + I$ ).

## DENSITY AND BALANCE

To further complicate matters, you must consider the effect of density on zone balancing. Put simply, a  $6 \times 6$  block of light density Residential *does not balance* a  $6 \times 6$  block of medium density Commercial and a  $6 \times 6$  block of medium density Industrial.

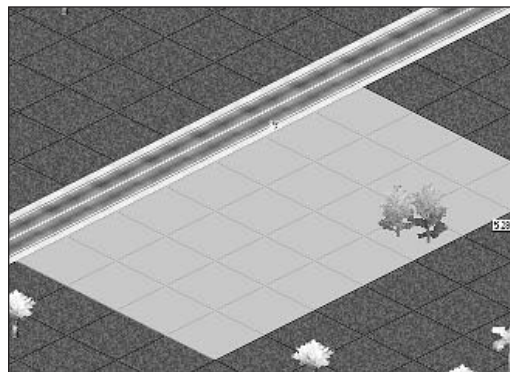


Fig. 10-6. Begin by zoning only light density zones.

To illustrate why, consider it in terms of individual buildings. Every Residential, Commercial, and Industrial building is assigned a figure for how much demand it satisfies.

**Table 10-1. Demand Supply by Density**

| <i>Zone</i> | <i>Density</i> | <i>Demand Supply (Per Building)</i> |
|-------------|----------------|-------------------------------------|
| Residential | Low            | 18–23                               |
| Residential | Medium         | 67–73                               |
| Residential | High           | 142–157                             |
| Commercial  | Low            | 17–18                               |
| Commercial  | Medium         | 61–64                               |
| Commercial  | High           | 128–130                             |
| Industrial  | Low            | 17–19                               |
| Industrial  | Medium         | 61–67                               |
| Industrial  | High           | 129–130                             |



## CROSS REFERENCE

These numbers represent a vast oversimplification of several concepts not relevant here. A more complete discussion of their significance will have to wait until Chapter 12.

These numbers make plain the impact of density on zoning. Laying down a block of light density Residential zoned tiles *potentially* satisfies 18–23 “points” per building worth of demand for that zone. Laying down the same size block of medium density tiles, on the other hand, *potentially* supplies 67–73 points per building; a jump of more than 300 percent. To keep your zones balanced, be aware of the relative differences represented by these numbers:

- 1 tile medium density zone  $\approx$  3.5 tiles light density zone
- 1 tile high density zone  $\approx$  2 tiles medium density zone  $\approx$  7 tiles light density zone



The lesson: When considering balance, think of medium and high density tiles as heavier weights than light density. Putting a seven pound weight on a balanced scale will offset the balance more than would a one pound weight.

**TIP**

It bears repeating that you don't need to keep meticulous track of zone balance. Truth be told, it's something acquired with experience.

If you want to be careful about it, however, the way to do it is to lay down equal density zones of all three types simultaneously: for every  $8 \times 8$  block of Residential, put down, for example, a  $6 \times 6$  block of Industrial and a  $2 \times 2$  block of Commercial.

There are potential drawbacks to this strategy that develop over time, so it should only be used until you acquire the "feel" for zone balancing.

## BALANCING COMMERCIAL AND INDUSTRIAL ZONES

You know that your Commercial and Industrial zones should roughly equate with your Residential zones in number and density. What, then, should the ratio be between them? Does it matter?

**CROSS REFERENCE**

Commercial to Industrial ratios are also discussed in Chapter 12.

Yes, it matters a lot and depends strongly on the population of your city. In the real world, cities tend to begin with large Industrial bases and gradually shift, as population grows, to a primarily Commercial economy. *SimCity 3000* reflects this reality as shown in the table titled, "Ratio of Commercial Zones to Industrial Zones."



Fig. 10-7. A young city will be dominated by industry with only a tiny Commercial presence.

**Table 10-2. Ratio of Commercial Zones to Industrial Zones**

| <i>Total City Population</i> | <i>Percent Commercial</i> | <i>Percent Industrial</i> | <i>Ratio</i> |
|------------------------------|---------------------------|---------------------------|--------------|
| 0–32,999                     | 17 percent                | 83 percent                | 1:5          |
| 33,000–99,999                | 20 percent                | 80 percent                | 1:4          |
| 100,000–132,999              | 22 percent                | 78 percent                | 1:3.5        |
| 133,000–165,999              | 25 percent                | 75 percent                | 1:3          |
| 166,000–199,999              | 29 percent                | 71 percent                | 1:2.5        |
| 200,000–232,999              | 33 percent                | 67 percent                | 1:2          |
| 233,000–365,999              | 50 percent                | 50 percent                | 1:1          |
| 366,000–499,999              | 60 percent                | 40 percent                | 1.5:1        |
| 500,000–632,999              | 67 percent                | 33 percent                | 2:1          |
| 633,000–765,999              | 71 percent                | 29 percent                | 2.5:1        |
| 766,000–899,999              | 75 percent                | 25 percent                | 3:1          |
| 900,000–1,032,999            | 76 percent                | 24 percent                | 3.2:1        |
| 1,033,000–1,165,999          | 77 percent                | 23 percent                | 3.5:1        |
| 1,166,000–1,568,999          | 79 percent                | 21 percent                | 3.7:1        |
| 1,569,000–∞                  | 80 percent                | 20 percent                | 4:1          |

## INDUSTRIAL ZONES

Always start a new city by plopping down some Industrial zones. The theory is that a certain level of demand for industry exists outside your city—this is where the buildings come from when you initially zone. This “booster” demand, however, won’t last long; it’s just there to get you started. Once the Industrial zones start to fill, they create demand for Residential zones to house the newly arrived Industrial employees.

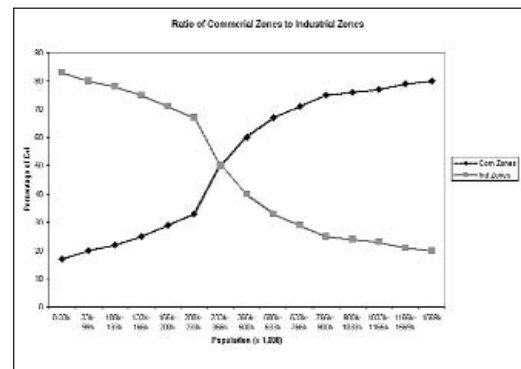


Fig. 10-8. This graph shows the ratio of Commercial to Industrial files as population increases. Industrial drops as Commercial rises, intersecting at 233,000.





Remember these basic rules and tips when dropping Industrial zones:

## WHERE TO PLACE THEM

Build your Industrial zones away from Residential and Commercial zones to minimize their various negative effects (land value, aura, and pollution) but don't build them so far away that the Residential Sims can't get to work.



Fig. 10-10. Clump your Industrial zones away from Residential and Commercial neighborhoods. You might as well put them around your Power Plant.

Build large Industrial zones. This saves on Road/Rail building and allows you to keep your polluters tightly clustered.



Fig. 10-9. Start by putting down some light Industrial zones to bring in your first residents. Once these are set up, demand for other zones begins.

Build your initial Industrial zones around your first Power Plant. Better to cluster your biggest polluters than have to move them toward town. Industrial zones belong near the edge of the map (until clean industry starts to dominate your city). Thus, some portion of their pollution impact will go "off the map," reducing your global pollution statistics.



Fig. 10-11. Keep Industrial zones large, and stick them on the edge of the map to minimize their impact on citywide pollution.



## TRANSPORTATION

Industrial tiles can be as far away as 5 tiles from transportation access. The maximum block depth of Industrial zones (with Roads on opposing sides) is, therefore, 10. There's no obligation to make them this big, but there are reasons to do so.

Passing the Shuttle Ordinance increases Industrial Sims' travel distance to 6 tiles. Blocks can, thereafter, be as deep as 12.

You don't need to build Bus Stops near Industrial zones. Residential Sims can get off the Bus anywhere they want and Industrial zones don't use Buses.



Fig. 10-12. Industrial zones can be large. If you place a Road on either side of this block, it can be 10 tiles deep and as long as you desire. If you pass the Shuttle Ordinance, it can be 12 tiles deep!

## ZONING TO ENHANCE LAND VALUE

Industrial zones don't really have high and low land value; there is only dirty and clean. Though it does nothing for your tax base, the truth is that Industrial Sims *love* low land values. The lower the better!



### TIP

If land value is too high when you start an Industrial zone, it might not develop.

Industrial land value can be enhanced by proximity to some value-boosting structures (Police Stations, Fire Stations, Parks, etc.). Their effect, however, is probably better used in Commercial and Residential neighborhoods.



### CROSS REFERENCE

For a list of land value building effects, see Chapter 13.



Fig. 10-13. It can be a good idea to put a Police Station in the middle of a huge Industrial block. It expands the size of the block and reduces crime in your most crime-ridden zone type.



Place any NIMBY structures (buildings with negative land value effect) near your Industrial zones. Some of these actually benefit Industrial zones although they damage other kinds. At the very least, they can't do any harm.

## WHAT ABOUT FARMS?

Farms are actually a special kind of Industrial development. Unlike normal Industrial buildings, Farm buildings require very specific conditions to develop and operate. As such, they are more like the Specialized zones discussed in the "Residential Zones" section. Consult that section for specifics.

## RESIDENTIAL ZONES

Residential zones are the second type of zone you set up once your Industrial zones begin to develop. Unless you're trying to control growth, you'll find yourself adding Residential zones constantly. Here are a few pointers to keep in mind.

### WHERE TO PLACE THEM

Establish Residential zones as far away as possible from Industrial zones and Power Plants. Industrial zones decrease land value and aura and increase pollution, all bad things for a Residential zone.

Place Residential zones near water, trees, and on higher-than-average ground. These things increase value and the trees actually reduce pollution.



Fig. 10-14. Drop undesirable structures in the heart of Industrial zones.



Fig. 10-15. You'll want your Residential zones far enough away from Industrial zones to escape pollution but not so far away that your residents can't get to work.



## NOTE

Zoning over trees causes them to be automatically demolished when the Sims start building. To preserve the trees, leave their tiles unzoned as you surround them with zoned tiles.

## TRANSPORTATION

Residential tiles can be up to 4 tiles away from a transportation source. Blocks of Residential tiles can, therefore, be up to 8 tiles deep (with Roads on opposing sides). The Shuttle Ordinance increases this number to 5, allowing for depth of up to 10.

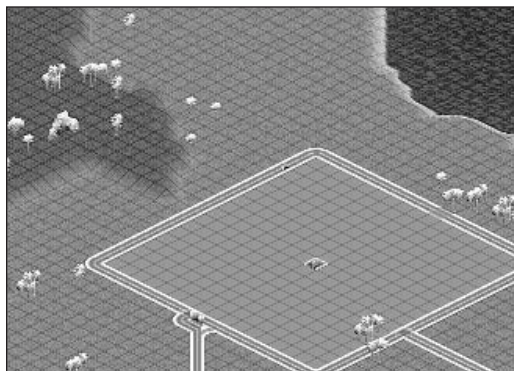


Fig. 10-17. This unusually large Residential zone owes its size to the Subway Station in the center. Keep your Subway Service running well, however, or tiles dependent on this Subway Station will be stranded and abandoned.

## ZONING TO ENHANCE LAND VALUE

Create water or trees near Residential zones with the Landscaping Tools.

Leave  $3 \times 3$  spaces in the middle of your Residential zones for water (the best choice if you can afford it) Parks, educational structures, and other land value-boosting buildings (known as “YIMBYs” or “Yes in My Backyard”).

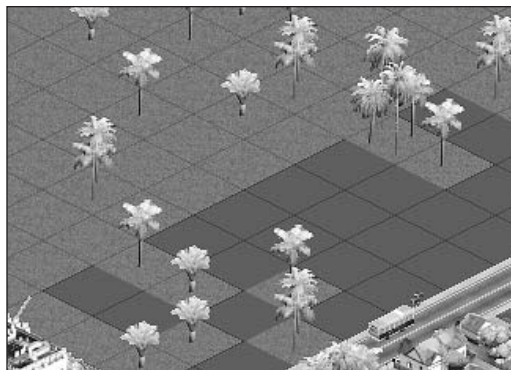


Fig. 10-16. Trees absorb pollution, and water is your best bang-for-the-buck land value enhancer if you use it right. Don’t zone over trees if you want to keep them.

You can place Subway Stations inside large blocks of Residential zones; all tiles within a 4-tile radius will have access to it. A block of Residential tiles with a Subway Station in the middle can be  $17 \times 17$  ( $18 \times 18$  with the Shuttle Ordinance).

Residential Sims use all forms of transportation. Give them all the options by building Roads and Highways, and Subway, Bus, and Train Stations near their zones.



Fig. 10-18. A  $3 \times 3$  space in the middle of Residential blocks leaves ample space for Parks, water, or city services buildings. Use these spaces to increase land value, reduce average pollution, or enhance aura.



## COMMERCIAL ZONES

Once you've starting seeing an influx of Industrial and Residential Sims, you'll be ready to add Commercial zones—Sims need a place to shop after all.



### TIP

Be very conservative when adding Commercial zones, especially with a young city. Commercial demand is very low and fragile.

## WHERE TO PLACE THEM

Place Commercial zones anywhere you'd put Residential zones. In other words, keep them away from Industrial zones, Power Plants, and anything else that creates pollution or reduces land value.

Always take advantage of Landscape features by zoning near them.



Fig. 10-19. Keep Commercial tiles away from industry and other pollution sources and near water or trees or on hills.



Fig. 10-20. A few Commercial tiles go a long way when you're just starting out. Don't get zone happy or you'll have lots of empty blue tiles.

Keep Commercial blocks very small, especially when your population is low. You can create Commercial zones as deep as 6 tiles (with Roads on opposing sides).



## TRANSPORTATION

Commercial tiles can be up to 3 tiles away from a transportation source. Blocks of Residential tiles can, therefore, be up to 6 tiles deep. The Shuttle Ordinance increases this number to 4, allowing for depths of up to 8.

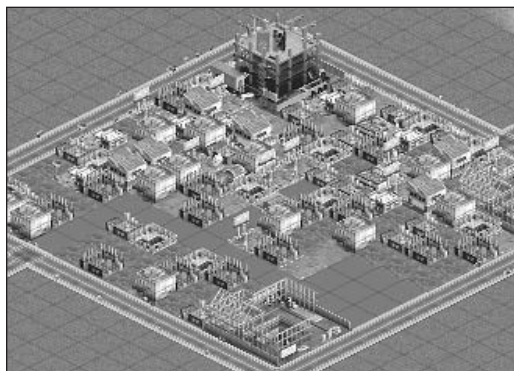


Fig. 10-22. This unusually large Commercial zone owes its size to the Subway Station in the center. Keep your Subway Service running well, however, or tiles dependent on this Subway Station will be stranded and abandoned.

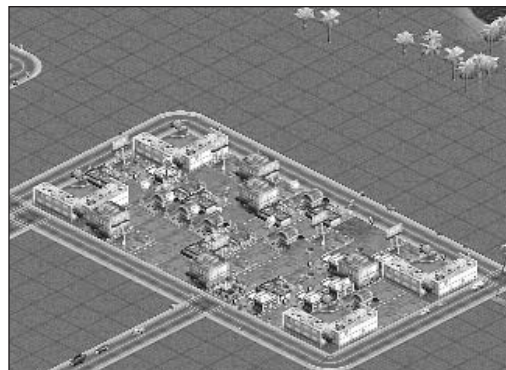


Fig. 10-21. Commercial zones can be large. If you place a Road on either side of this block, it can be 6 tiles deep and as long as you desire. If you pass the Shuttle Ordinance, it can be 8 tiles deep!

You can place Subway Stations inside large blocks of Commercial zones; all tiles within a 3-tile radius will have access to it. A block of Commercial tiles with a Subway Station in the middle can be  $13 \times 13$  ( $14 \times 14$  with the Shuttle Ordinance).

Commercial Sims use all forms of transportation. Give them all the options by building Roads and Highways, and Subway, Bus, and Train Stations near their zones.

## ZONING TO ENHANCE LAND VALUE

Create water or trees near Commercial zones with the Landscaping Tools.

Leave  $3 \times 3$  spaces in the middle of your Commercial zones for Parks, educational structures, and other land value-boosting structures. Many structures benefit Commercial zones more than Residential (some substantially so, such as the City Hall), so choose carefully.



Fig. 10-23. A  $3 \times 3$  space in the middle of Commercial blocks leaves ample space for Parks, water, or city services buildings. Use these spaces to increase land value, reduce average pollution, or enhance aura.

**TIP**

RCI zone blocks can be truly gigantic. Using many of the tips above, you can make some pretty big blocks. You can build even larger blocks by taking advantage of a loophole in the distance-to-transportation rules.

Only one square of a building needs to be within the requisite number of tiles from transportation. Thus, with higher density zones and their multi-tile buildings, you can build several tiles deeper in the hope that a large building ( $3 \times 3$  or  $4 \times 4$ ) will form in the center. As long as one square has access, the building will rise.

## SPECIALTY ZONES

Specialty zones, often referred to as “Puzzle zones,” are similar to RCI zones in several respects, but drastically different in others. Specialty zones are a hybrid of city service buildings (à la Police Stations, Hospitals, etc.) and RCI zones:

- Like service buildings, Specialized zones are not dependent on demand. Instead, they exist to provide some specialized benefit to the RCI zones.
- Like RCI zones, you can lay them out one tile at a time and make them almost any shape or as large as you want.

The primary feature of Specialized zones is their adherence to strict rules about how they are zoned and developed. Without the proper prerequisites, such as size, power, Road access, etc., the zones will stay undeveloped.

To properly establish these zones, you'll need to know all the conditions that, once met, allow your Specialized zones to begin development.

## LANDFILL

Usually, one of your first jobs as Mayor is to establish a network to dispose of your Sims' trash. For most Mayors this means setting up some Landfill zoned tiles.

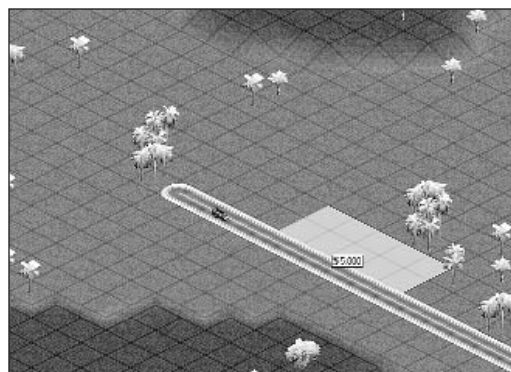


Fig. 10-24. Airports and Seaports are Specialty zones. They lay out like RCI zones, but they have a very different function.



**TIP**

It should go without saying that Landfills should be very far away from Residential and Commercial zones. They produce a gag-inducing amount of pollution.

For Landfill zones to receive garbage, two conditions must be met. Landfill blocks must be:

- At least  $2 \times 2$  tiles
- At least 1 tile adjacent to Road or Rail or be within 5 tiles of a developed RCI zone.



**CROSS REFERENCE**

For more details on Landfills, see Chapter 17.

## LANDFILL SIZE

Landfills can expand to any size but, to begin service, they must be at least a  $2 \times 2$  square.

## TRANSPORTATION



**TESTER TIP!**

There's an easy way to operate your Landfill very far away from your city; put down a  $2 \times 2$  Landfill zone on the opposite end of the map. Next, put down one Road tile at the edge of the map. When the Engineers ask, connect this Road tile to your neighbor (it'll cost you \$2,500) and there's your working Landfill.

Why does this work? All your Landfill needs is a Road on which it can complete a "trip." Because a connection to a neighbor technically counts as a trip, the requirement is satisfied. Basically, *your trash* is going to *your Landfill* without a connection between them. This, by the way, has nothing to do with a Neighbor Deal for trash. It's just a technicality to take advantage of.

—Mike Lawson, *Maxis*

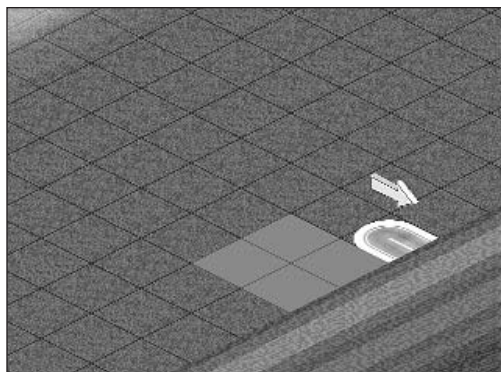


Fig. 10-25. You can get a Landfill to work without connecting it to your city if you attach it to a neighbor.



To function, a Landfill area must have at least 1 tile in contact with a Road or Train Station or within 5 tiles of a developed RCI zone.

That's not all, however. The Road or Rail must be part of your city's transportation network. This means that a Road or Rail must be linked to at least one RCI zone. These arrangements won't cut it:

- A link to nowhere
- A Rail track with no Stations
- A link to a non-RCI structure (such as a Police Station or Power Plant)
- A link to only a few RCI zoned tiles (Actually, this will work but must be meticulously watched to avoid building abandonment.)



Fig. 10-26. You can't isolate Landfills. You can put them far away, but the trash has to get there by a Road or Rail connected to your city.



## CROSS REFERENCE

There is a situation in which your Landfill will be connected to an RCI zone but will still decommission. It is, however, a bit complicated without a more in-depth discussion of how transportation works. If you are having this problem, look into "Trips" in Chapter 18.

The easy solution is to make sure the Landfill is connected to your central transportation network, not just an isolated Road to an isolated zone. This gives your trash collectors a massive number of possible destinations; they only need to find one house to pick up the entire city's garbage (realism has its limits).

## AIRPORTS

Once your city has been humming for a while, it's time to set up an Airport. Pick a spot outside your city's core where the Airport's pollution won't cause any problems.

To make way for an Airport, your zones must be:

- At least  $3 \times 5$
- Watered
- Powered
- Within 5 tiles of a Road, Subway Station, or Train Station
- Far away from tall buildings



## AIRPORT SIZE

Though you start with a  $3 \times 5$  area, make sure you have lots of room for future expansion. As cities grow, Airports can get huge.

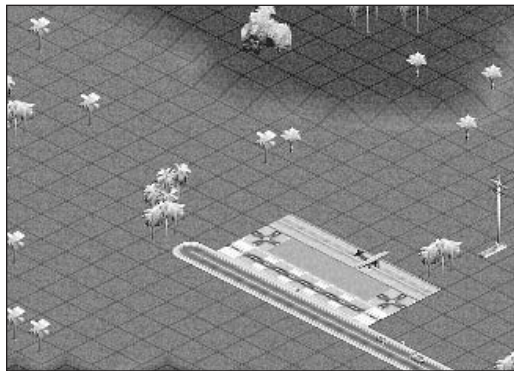


Fig. 10-28. A properly laid out  $3 \times 5$  Airport zone nabs you a runway.



### TIP

Save your Simoleons and add only a few Airport tiles at a time.



Fig. 10-27. Airports give your Commercial sector an outlet for their goods.

Building an Airport starts with building a runway. The minimum size for a runway with basic service is  $3 \times 5$  tiles. You can add more tiles (for towers, hangars, etc.) but they may not develop immediately.

## WATERED

Make sure there's a Water Pipe or Structure within 7 tiles of at least 1 of your initial Airport tiles. To expand, however, you'll need to make sure the entire complex is watered.

## POWERED

There must be a Power Line, powered tile, or Power Plant within 5 tiles of one of your Airport tiles.

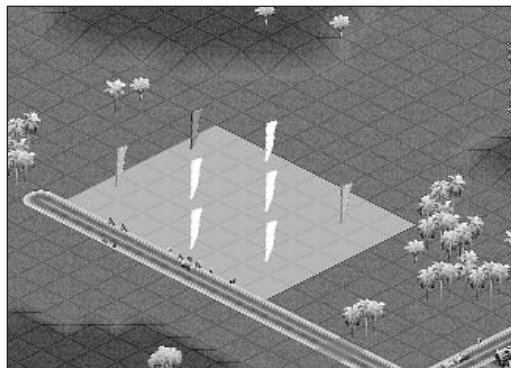


Fig. 10-29. Airports need power and water to be born and stay operational.



## TRANSPORTATION

At least 1 tile of your Airport must be within 5 tiles of:

- A Road
- A Train Station
- A Subway Station



### TIP

This mode of transportation, however, doesn't need to be connected to anything. It can be a single Road tile.



Fig. 10-30. Airports don't need to be on a Road but must be within 5 tiles of one.

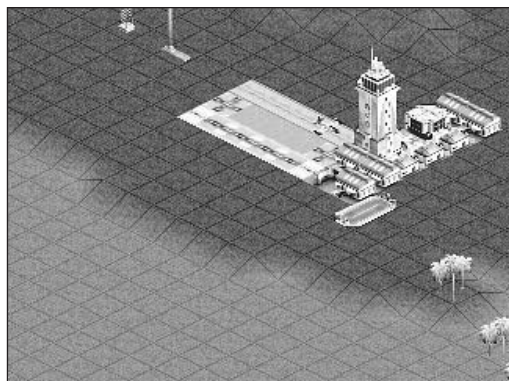


Fig. 10-31. This is the cheap way to get an Airport up and running while keeping its pollution far away from your tender citizens.



Fig. 10-32. A downtown Airport will not develop.

## FAR AWAY FROM TALL BUILDINGS

Planes can't land if they risk crashing into shiny Commercial high-rises. Besides, anywhere there's tall buildings, you probably won't have room for expansion.



## SEAPORTS

Seaports work similarly to Airports but have the added benefit of providing a link to neighbor cities across water. They also differ in their more complex zoning requirements.

To break ground on a Seaport, your zones must meet these conditions:

- Be within 1 tile of a navigable body of water.
- Feature a straight coastline at least 5 tiles long.
- The coastline must be near sea level.
- There must be 5 tiles of water in front of each coastline tile.
- All zones must be watered.
- All zones must be powered.
- Coastline tiles must be no more than 7 tiles from transportation.



Fig. 10-33. Seaports offer valuable connections for your Industrial and Commercial zones and create links to overseas neighbors.

## ONE TILE OF NAVIGABLE BODY OF WATER

A “navigable” body of water is either a seacoast or a river. Inland lakes are, obviously, not sufficient. Nor are rivers made with the Create Surface Water Tool.

Seaport zones must be on the closest tile possible to the coast of a river or ocean.

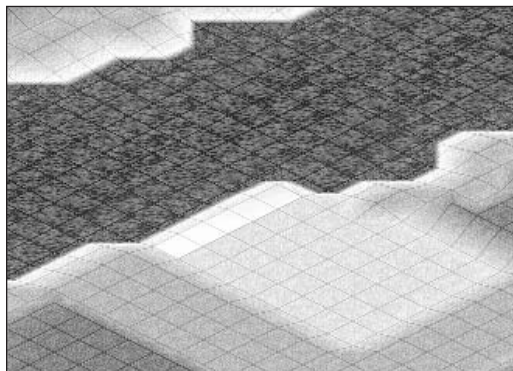


Fig. 10-34. The coastline must be straight and 5 tiles long.

## STRAIGHT COASTLINE, 5 TILES LONG

If you can find a straight coastline, use it. If not, use the Level Terrain Tool to engineer one. All tiles you intend to use as your coastline must be in the same row.



## NEAR SEA LEVEL

The crucial coastline tiles must be as close as possible to sea level. In fact, they should rest on the lowest possible tiles you can even zone. These tiles are usually lightly colored and register at about 26 meters elevation.

Beyond the coastline tiles, the rest of the Seaport can be any elevation you like. I think stepped Seaports look great.

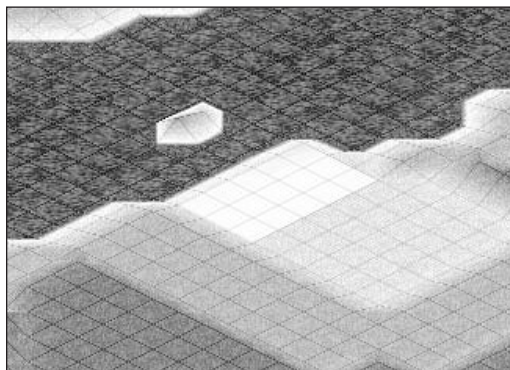


Fig. 10-36. Islands within 5 tiles prohibit the development of docks. Without docks, no Seaport can develop.

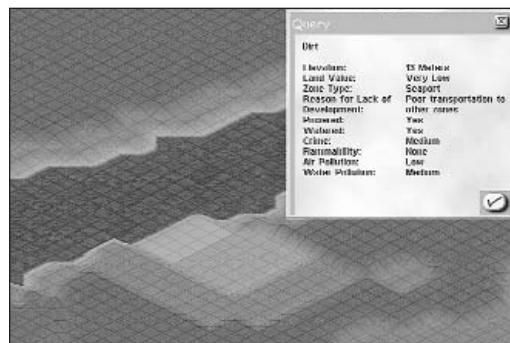


Fig. 10-35. The coastline must be just above the water. Use the Query Tool to find out how close you are to water.

## FIVE TILES CLEAR WATER

If there are any islands or other terrain above sea level within 5 tiles of your coastline, it will be impossible to build the essential piers. Without piers, any tiles that initially developed will wither and die.

Choose a coastline free of obstacles or use your Lower Terrain Tool to eliminate any possible problems.

## WATERED

Make sure there's a Water Pipe or Structure within 7 tiles of at least 1 of your initial Seaport tiles.

## POWERED

There must be a Power Line, powered tile, or power source within 5 tiles of one of your Seaport tiles.

## TRANSPORTATION

The coastline tiles of your Seaport must be within 7 tiles of:

- A Road
- A Train Station, or
- A Subway Station

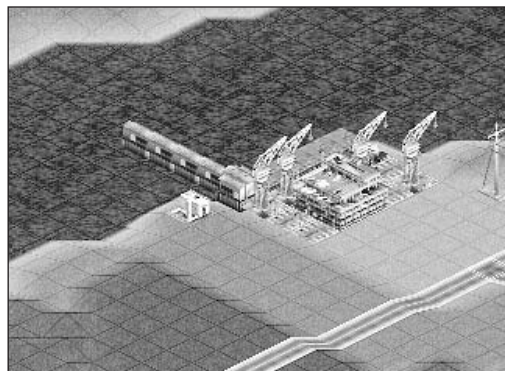


Fig. 10-37. Seaports require transportation; keep your coastline within 7 tiles of a Road.





**TIP**

This mode of transportation, however, doesn't need to be connected to anything. It can even be a single Road tile.

## AGRICULTURAL ZONES

Farms grow, somewhat counterintuitively, on Industrial zones. Like most Industrial zones (but unlike other Specialty zones), Farms are linked to the ebbs and flows of Industrial demand. If there's no demand, a Farm won't form.

Special, strictly defined conditions, however, must be present for Agricultural development to take place. For a Farm to form you must provide the following conditions:

- Tiles of low land value
- Tiles with low or no pollution
- Blocks of at least  $8 \times 8$ , but no more than  $18 \times 18$
- Must be zoned Light Industrial
- Powered
- A Road on at least one side (but no more than three sides) of the zoned block
- Each tile must be within 9 tiles of a Road

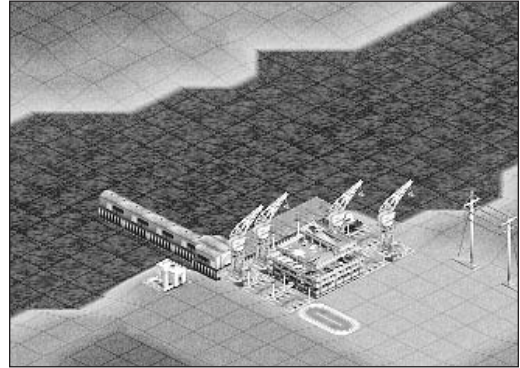


Fig. 10-38. This is the cheap way to get a Seaport up and running while keeping its pollution far away from your tender citizens.

### WHY BUILD FARMS?

Farms are the simplest form of clean industry, and you don't have to wait decades or have an overeducated population to bring Farms to town. If you want to keep pollution down, you can answer Industrial demand with Farm-sized blocks.

Unfortunately, you'll need a lot of Farms to match even a moderate-sized Industrial block for job supply and Industrial Demand Satisfaction.

Given the amount of work it takes to grow and maintain Farms, only mayors with a commitment to Farming or low pollution should go to the trouble of using Farms to supersede dirty industry.



## LOW LAND VALUE

Farmers like cheap land and won't raise their Barn on any but low land value tiles. To ensure low value, stay away from terrain water and zone on lower-than-average elevation.

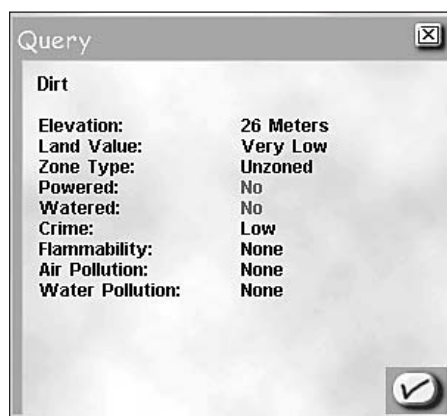


Fig. 10-40. Check the pollution level before building.

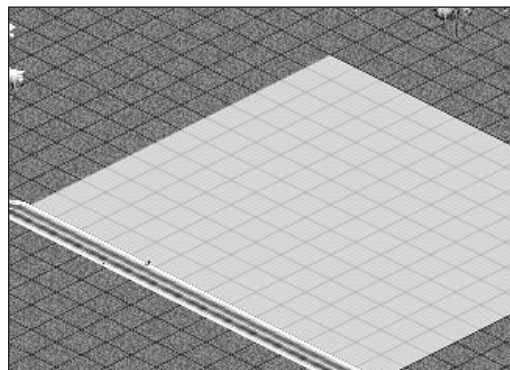


Fig. 10-39. Low-lying, flat land far from your city and any environmental water is an ideal spot for a Farm.

## LOW OR NO POLLUTION

Before zoning a space for Agriculture, Query the tiles to be sure the pollution levels (both water and air) are below medium. Farmers won't build on polluted tiles and will abandon their Farms if pollution rises.

## AT LEAST $8 \times 8$ , BUT NO MORE THAN $18 \times 18$

If the land you choose meets all conditions, zone at least  $8 \times 8$ , but no more than  $18 \times 18$  squares for Agriculture. Farmers won't build on smaller blocks. Theoretically, a single Farm can sprout on a block of up to  $18 \times 18$ , but it rarely happens in practice—more often in such a space you get four  $9 \times 9$  Farms. In fact, Farmers seem to most enjoy blocks of  $9 \times 9$ . With that in mind, try to zone in multiples of 9.

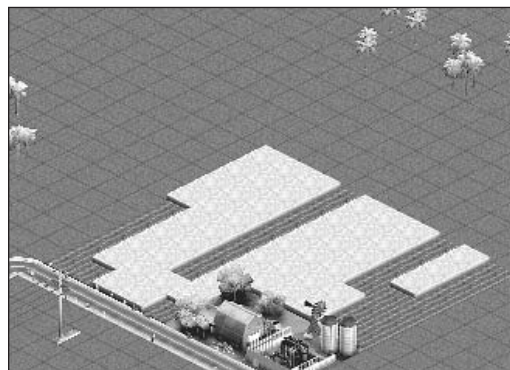


Fig. 10-41. Building 9 tiles deep from the Road and 9 tiles wide seems to be a no-brainer for Farm development.

Realistically, you can make an Agricultural block as large as you like, as long as:

- Two sides of the block are 18 tiles long.
- The other two sides of the block are divisible by 9, with Roads running along both sides.

## LIGHT INDUSTRIAL ZONING

Farms will simply not develop on anything other than Light Industrial zones.

## POWERED

There must be a Power Line within 5 tiles of one of your Agricultural tiles. Don't zone near already powered structures or Power Plants or their pollution could unravel your Farm plans.

## ROADS ON AT LEAST ONE SIDE (BUT NOT FOUR)

Farmers don't like being fenced in, so do not surround your Farms with Roads. Doing so eliminates the chances of your Farms' development.

Fig. 10-43. Don't fence us in! Leave at least one side of your Farm blocks Roadless or no Farms will form.

## EACH TILE MUST BE WITHIN 9 TILES OF A ROAD

If you want to create large Farms or large clusters of Farms, you must have Roads on both of the long sides of the blocks. Why? Farm tiles only develop if they're within 9 tiles of a Road. To create a block of  $18 \times 18$ , the only way to keep the inner tiles close enough to a Road is to put Roads on opposite sides. A third or fourth Road would be irrelevant for this purpose.

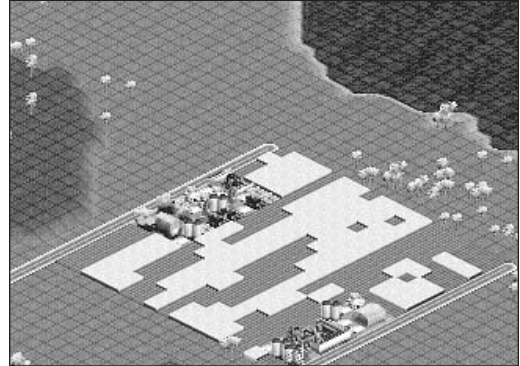


Fig. 10-42. This Farm zone can go on forever—it's 18 tiles deep with Roads on either side. The line of tiles along the Roads should always be in multiples of 9.

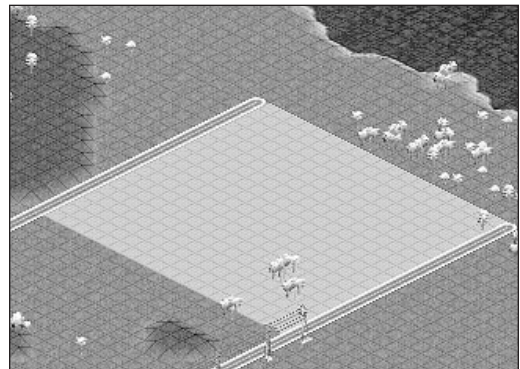
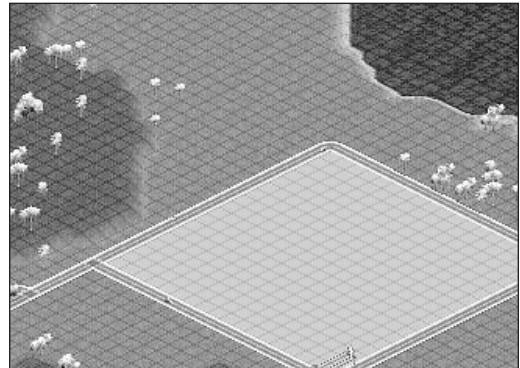


Fig. 10-44. To develop, every Farm tile must be within 9 tiles of a Road. Use parallel Roads for wider zones.





# DEMAND

You can place perfectly balanced and aesthetically pleasing zones all day if you like, but it won't matter a fig if there isn't *demand* for those zones.

Demand is so free-flowing and ruled by such intricately interdependent factors that it's hard to make sense of it all. Still, there is a method to the madness, and knowing this method allows you to effectively meet and anticipate changes in demand.

Think of demand as a scale. The simulation puts weights on one side of the scale, and it's up to you to keep the scale in balance by either:

1. **putting opposing weights on the other side of the scale, or**
2. **finding a way to remove weights added by the simulation.**

We'll return to this metaphor frequently.

## INCREASING DEMAND

Normally, mayors want to increase demand whenever possible. They want to grow, grow, grow. In this normal course, try each of these things to get your RCI Demand Indicator moving up, up, up:

- Lower taxes.
- If you want to boost Industrial or Commercial demand, be sure you're satisfying Residential demand.
- Add appropriate Demand Cap Relievers if you are butting against a cap.
- Pass or repeal appropriate Ordinances.



Fig. 11-1. Sure they look pretty, but will they work?

## DECREASING DEMAND

Often, you need to slow your city's growth to bring it under control. This can be difficult to do and can have nasty side effects: if you push too hard, you'll see negative demand and mass abandonment of your zones. To pull back on your city's reins, try these tactics:

- Increase appropriate taxes.
- Pass or repeal appropriate Ordinances.
- Destroy any Demand Cap Relievers.
- Freeze new zoning.



Fig. 11-2. Trying to depress demand can bring your city under control—or make matters worse.



### CROSS REFERENCE

Tax tinkering is covered in Chapter 9. Ordinances are outlined fully in Chapter 23. Ordinances relating to demand, however, appear at the end of this chapter.

## DEMAND DEFINED

By demand, we mean a need for a certain kind of zone that's not currently available.

For example, if you lay down a large field of Industrial zones and there's a demand for them, they'll fill with buildings offering a certain number of jobs. These jobs will be filled by workers. Any workers attracted from outside of your city will then need a place to live. If you have vacant Residential zones, they'll move into those. If not, their need for housing is unmet; thus, you will have a rise in Residential demand.



Fig. 11-3. A crop of new buildings will pop up instantly if there's sufficient demand.



Fig. 11-4. Your RCI Demand Indicator is in constant flux. Study it carefully before laying down zones.

Your RCI Demand Indicator represents this unfulfilled need. Displaying demand for all three RCI zone types (Residential, Commercial, and Industrial), the RCI Demand Indicator displays how sought after (or not) your city is. Look to it constantly to see what's needed in your city and to diagnose problems.



### NOTE

The RCI Demand Indicator is a graph showing *relative* demand (i.e., if half the bar is filled, demand is about half of maximum). There's no way to know the precise number at any given time. It may help, however, to know that demand ranges from -2,000 to 2,000.

Demand means different things to different zones:

- Residential: Demand from workers in Industrial and Commercial zones
- Commercial: Your city's demands for goods and services
- Industrial: External and some internal demand for goods made in your city

## SATISFACTION DEFINED

Demand Satisfaction (sometimes called "Demand Supply") is the ability of a zone to fulfill demand by becoming inhabited.

Satisfaction means different things to different zone types:

- Residential: Number of workers in the city
- Commercial: Commercial development in the city
- Industrial: Industrial development in the city

Every Residential, Commercial, and Industrial building satisfies a certain amount of demand. Let's say, hypothetically, that the RCI Demand Indicator shows a Commercial demand of 162. To completely fill this demand, you'd have to delineate a zone that can supply that same

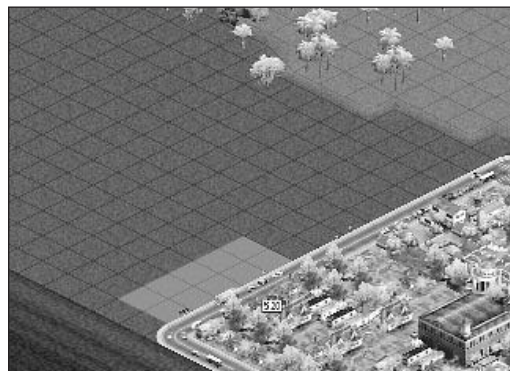


Fig. 11-5. React to demand appropriately by supplying what is needed and no more.

amount of Demand Satisfaction. That could be, for example, a  $3 \times 3$  block of light Commercial zoning—18 Demand Satisfaction per tile).

Alas, without the ability to quantify demand, such calculations are not really possible. They should, however, give you a general notion of how different zones affect demand relative to each other.

Generally, as demonstrated in Table 11-1, the ratio of supply for any kind of low to medium, or high density zone is 1:3 and 5:7 respectively (high density provides roughly seven times the Demand Satisfaction of low density).

Furthermore, low value in each density provides more Demand Satisfaction than high value of the same density, the assumption being that high value structures contain fewer residents.

## WORKFORCE SUPPLY AND DEMAND

A developed Industrial or Commercial tile, and most non-RCI buildings, create a certain number of jobs in your city's economy; this is known as "workforce demand."

To fulfill this demand for employees, you must first establish Residential zones to house new immigrants moving in to fill the new jobs. This need is communicated to you in the form of heightened Residential demand.

Every tile of Residential zoning fills a certain number of jobs; in other words, every building comes with a certain number of workers ready to join your city's workforce. This number is called "workforce supply."

How many Sims does each tile bring with it? Every job attracts an average of one worker and one nonworker—a two-income household, then, would bring an average of four Sims: two wage earners and two others outside the workforce. In simpler terms, on average, half of all new Simmigrants will be members of the workforce.

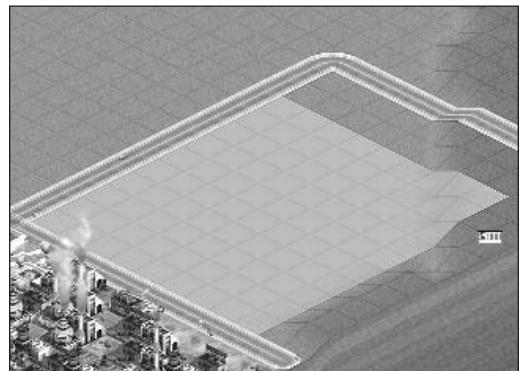


Fig. 11-6. Whenever you set up a large block of Industrial or Commercial zones, a surge in Residential demand is likely to follow.



# DEMAND AND DENSITY

Density plays a huge role in the art of meeting demand. Returning to our scale metaphor, let's say the simulation places one large weight on its own side. To answer the simulation's move, you could either place one heavy weight on your side or a bunch of lighter weights. Either way the result is the same.

What makes this process confusing is the size of the "weights." Imagine that the light, medium, and heavy weights all *appear* to be the same size. Their masses and effects, however, are dramatically different.



Fig. 11-7. Don't answer low demand with a medium or high density zone just because it *could* develop as low density.



## CROSS REFERENCE

Zone balancing and the effect of density is further discussed in Chapter 10.

Thus, if you treat all of your weights as equivalent just because they're all the same size, you might counter the simulation's light weight with a heavy one, throwing the scale back out of balance.



## TIP

It's best to start your city using exclusively light density zones—they're cheap and they can start to develop at even very low land value. Using medium or high density early on makes the "scale" unstable, causing big demand swings back and forth.

When the time comes to add medium density zones, remember to set up smaller blocks than you would with light density zones. You may even want to demolish and de-zone a light density block and replace it with higher density



Fig. 11-8. One way to use higher density cautiously is to demolish and rezone a lower density block and replace it with one of higher density.

zones; this gives you a moderate net increase in Demand Satisfaction, but allows for a larger block of denser zones than if you simply added from scratch.



## NOTE

Demand Satisfaction is altered not only by density but also by differences in land value. You can't, however, directly control or predict at what value your zones will develop. Given this unpredictability and the modest variations arising from differences in land value, just be aware of the differences and observe of their effects.

# ZONE DEMAND FIGURES

With these general concepts in mind, let's look over the raw numbers. The following table shows what role each type of zone plays in demand:

1. Column one shows the type of zone—"Res. MD/HV" would be Residential Medium Density (MD)/High Land Value (HV).
2. Column two shows how much one tile of this zone will satisfy or decrease demand.
3. Column three shows workforce supply and demand, or how many jobs the zone creates (a positive number) or fills (a negative number).

**Table 11-1. Demand Satisfaction and Workforce Supply (Per Tile) by Zone**

| <i>Zone</i>  | <i>Demand Satisfaction</i> | <i>Jobs Created (+)/Filled (-)</i> |
|--------------|----------------------------|------------------------------------|
| Res. LD/LV   | 23 Res.                    | -12                                |
| Res. LD/MV   | 19 Res.                    | -10                                |
| Res. LD/HV   | 18 Res.                    | -9                                 |
| Res. MD/LV   | 73 Res.                    | -37                                |
| Res. MD/MV   | 71 Res.                    | -36                                |
| Res. MD/HV   | 67 Res.                    | -34                                |
| Res. HD/LV   | 157 Res.                   | -79                                |
| Res. HD/MV   | 151 Res.                   | -76                                |
| Res. HD/HV   | 147 Res.                   | -74                                |
| Com. LD/L-MV | 18 Com.                    | +17                                |

*Continued on next page*





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| <b>Zone</b>      | <b>Demand Satisfaction</b> | <b>Jobs Created (+)/Filled (-)</b> |
|------------------|----------------------------|------------------------------------|
| Com. LD/M-HV     | 17 Com.                    | +16                                |
| Com. MD/L-MV     | 64 Com.                    | +59                                |
| Com. MD/M-HV     | 61 Com.                    | +57                                |
| Com. HD/L-MV     | 130 Com.                   | +123                               |
| Com. HD/M-HV     | 128 Com.                   | +117                               |
| Ind. LD Dirty    | 19 Ind.                    | +17                                |
| Ind. LD Clean    | 17 Ind.                    | +17                                |
| Ind. MD Dirty    | 67 Ind.                    | +61                                |
| Ind. MD Clean    | 61 Ind.                    | +59                                |
| Ind. HD Dirty    | 130 Ind.                   | +127                               |
| Ind. HD Clean    | 129 Ind.                   | +123                               |
| Ind. Agriculture | 11 Ind.                    | +10                                |

## EFFECT OF NON-RCI BUILDINGS

While RCI zones are your main concern in demand, it's important to understand the effects hidden in other kinds of buildings.

## WORKFORCE DEMAND

Even though other buildings (Police Stations, Utility structures, etc.) do not directly impact zone demand, they do have an indirect effect on your city.



Fig. 11-9. Almost every building *you* place has an ancillary impact on demand. This Police Station, for example, provides jobs for cops.

11

DEMAND



Every building creates at least a few jobs, causing Residential demand to rise. These effects are shown below:

**Table 11-2. Job Creation in Non-RCI Building**

| <i>Structure/Zone</i>   | <i>Jobs Created</i> | <i>Structure/Zone</i>        | <i>Jobs Created</i> |
|-------------------------|---------------------|------------------------------|---------------------|
| Airport                 | 5/tile              | Microwave                    | 48                  |
| Bus Station             | 2                   | Military Base                | 1,000               |
| Casino Row              | 250                 | Museum                       | 45                  |
| City College            | 45                  | Nuclear Power Plant          | 96                  |
| City Hall               | 36                  | Oil Power Plant              | 48                  |
| City Jail               | 45                  | Performing Arts Center       | 40                  |
| City Zoo                | 48                  | Playground                   | 4                   |
| Coal Power Plant        | 48                  | Police Station               | 45                  |
| Country Club            | 75                  | Pond                         | 4                   |
| County Courthouse       | 135                 | Recycling Center             | 18                  |
| Defense Contractor      | 500                 | School                       | 45                  |
| Desalinization Plant    | 36                  | Science Center               | 375                 |
| Fire Station            | 45                  | Seaport                      | 5/tile              |
| Fountain                | 1                   | Small Park                   | 1                   |
| Fusion Power Plant      | 48                  | Solar Power Plant            | 32                  |
| Gas Power Plant         | 48                  | Spaceport                    | 250                 |
| Geyser Park             | 50                  | Sports Park                  | 16                  |
| GigaMall                | 250                 | Stadium                      | 200                 |
| Historic Statue         | 1                   | Stock Exchange               | 480                 |
| Hospital                | 45                  | Subway Station               | 2                   |
| Incinerator             | 18                  | Subway-to-Rail Connection    | 2                   |
| Large Park              | 9                   | Theme Park                   | 400                 |
| Library                 | 20                  | Toxic Waste Conversion Plant | 250                 |
| Lighthouse              | 8                   | Train Station                | 4                   |
| Marina                  | 18                  | University                   | 500                 |
| Maximum Security Prison | 225                 | Waste-to-Energy Incinerator  | 18                  |
| Mayor's House           | 4                   | Water Treatment              | 16                  |
| Medical Research Center | 135                 |                              |                     |



## EFFECT ON DEMAND SUPPLY

On the flip side, some buildings satisfy a certain amount of demand for either Industrial or Commercial zones. The effect is less demand for those zones.



### CROSS REFERENCE

Business Deal buildings such as the GigaMall or Casino are covered in Chapter 25.

For example, the GigaMall, though not zoned Commercial, satisfies a large amount of Commercial demand. This reduces overall demand for your conventional Commercial zones.

If you weren't aware of this side effect, you might not realize why your humming Commercial demand suddenly tanked the month after you introduced your Casino or GigaMall.

The actual impact of buildings that have this effect are listed in Table 11-3.

**Table 11-3. Non-RCI Building Effects on Commercial/Industrial Demand**

| <i>Structure</i>             | <i>Satisfies</i> |
|------------------------------|------------------|
| Casino Row                   | 750 Com.         |
| Defense Contractor           | 1,750 Ind.       |
| GigaMall                     | 1,250 Com.       |
| Military Base                | 2,000 Res.       |
| Stock Exchange               | 480 Com.         |
| Toxic Waste Conversion Plant | 1,750 Com.       |

## NEGATIVE DEMAND

When demand is negative (shown as a bar below the letters in the RCI Demand Indicator), it means that Sims are actually moving out of your city. When this occurs, your developed areas in the affected zones will start to be abandoned. You must increase demand to return these structures to life.



Fig. 11-10. The GigaMall or Casino can be a boon to your Residential Sims, but can throw your existing homegrown Commercial sector into a tailspin if you place it when Commercial demand is low.



Fig. 11-11. If a bar is below the letters "RCI," it means demand is negative and you've got a very big problem.

# TAXES AND DEMAND

Taxes are your most direct connection to demand. By making adjustments in the taxes your Sims pay, you can fine tune the amount of demand for each kind of zone.

In general, low taxes attract Sims, and high taxes keep them away or make them move out. Sound simple? Not quite.



## NOTE

Recall, however, that taxes are not the only force at work, so your tax tinkering will often have no effect or an effect you didn't anticipate.

| Budget               |        | Expenditures           | Income   |        |
|----------------------|--------|------------------------|----------|--------|
| 2005 Budget          | Adjust | Year to Date           | Year End | Meet   |
| January 2005         |        | Income                 | Estimate | Advice |
| Ordinances           |        | \$0                    | \$300    |        |
| Neighbor Deals       |        | \$0                    | \$0      |        |
| Business Deals       |        | \$0                    | \$0      |        |
| Transit Fees         |        | \$0                    | \$132    |        |
| Disaster Relief      |        | \$0                    | \$0      |        |
| Residential Tax Rate | 0      | \$0                    | \$0      |        |
| Commercial Tax Rate  | 6      | \$0                    | \$96     |        |
| Industrial Tax Rate  | 6      | \$0                    | \$1,092  |        |
|                      |        | Year to Date Income    | \$0      |        |
|                      |        | Estimated Income       | \$1,620  |        |
|                      |        | Year to Date Expense   | \$0      |        |
|                      |        | Estimated Expense      | \$7,452  |        |
|                      |        | Year to Date Cash Flow | \$0      |        |
|                      |        | Estimated Cash Flow    | \$5,832  |        |
|                      |        | Current Funds          | \$62,963 |        |
|                      |        | End of Year Funds      | \$77,131 |        |

Fig. 11-12. The Income ledger of your Budget window is your most direct connection to demand in your city.

# TAX SENSITIVITY

The amount of influence you can have over demand via taxes is dependent on your city's "tax sensitivity" which, in turn, is linked to city population.

When a city's young, low tax rates really make Sims come running, begging to be a part of your urban revolution. In this early stage, you can alternatively set taxes quite high without impacting demand. This is known as the No Effect Rate. Only as you approach the maximum rate (22 percent), will you see a strong negative impact on demand.

As a city ages, however, its "tax sensitivity" tilts toward the negative. Low rates lose much of their attraction, the No Effect Rate is quite low, and high rates mean instant rebellion.

This shift in tax sensitivity occurs gradually over the course of your city's life. Consult Table 11-4 below to understand how to use these changes to your advantage.



## TIP

Exploit your Sims' low sensitivity to high taxes early. Don't abuse them by getting too greedy, but it can't hurt to stay at or a little above the No Effect Rate.

**Table 11-4. Tax Sensitivity**

| <i>Population</i>  | <i>Tax Rate of No Effect</i> | <i>Demand Effect at 0% Taxes</i> | <i>Demand Effect at 22% Tax</i> |
|--------------------|------------------------------|----------------------------------|---------------------------------|
| 0–40,000           | 9% Tax                       | +30% Demand                      | -70% Demand                     |
| 40,000–80,000      | 7% Tax                       | +20% Demand                      | -90% Demand                     |
| 80,000–160,000     | 7% Tax                       | +10% Demand                      | -110% Demand                    |
| 160,000–320,000    | 6% Tax                       | +9% Demand                       | -130% Demand                    |
| 320,000 and higher | 5% Tax                       | +5% Demand                       | -150% Demand                    |

Using this information, set tax rates for a small city (under 40,000 Sims) as high as 9 percent with no impact on demand. Or approach zero and pull in plenty of new inhabitants.

Before changing tax rates, always check population against this table. Your goal should be to keep rates as high as possible, but low enough to expand your tax base.

**NOTE**

There will be times when demand is so strong that even setting very high rates won't extinguish it. If you see that notching up the rates isn't having a serious impact relative to booming demand, use that rare period to milk your Sims for all they're worth! Er, rather, invest in the future of their nation.

## DEMAND AND EXTERNAL ECONOMIC TRENDS

A world exists outside your cozy little town and it isn't always friendly. The national economy is a fickle mistress and your city's fortunes are tied to its ebbs and flows.

These changes in the national economy show up as seemingly inexplicable changes in Residential demand. It can soar wildly for a few months only to plunge into depression for a short time.

Knowing when these highs, lows, and plateaus will occur prevents you from overreacting when an externally induced demand change occurs.

Here's how it works. When you begin a new city, the clock starts ticking. At this point, there is no



Fig. 11-13. If you can't figure out why your Residential demand is nose-diving, check the calendar. You may be undergoing a national slump in demand.

alteration in your city's Residential demand. Once a certain number of months pass, a change occurs for another fixed number of months. This cycle continues infinitely, starting back at the beginning every twelve and a half years.

Using the actual figures from Table 11-5, you can see how this plays out. For the first 27 months of your city, Residential demand is unaffected by external forces (0 percent). Starting in the 28th month, however, your city will suffer a 5 percent decrease in Residential demand. After three months, everything goes back to normal until, 13 months later, a massive depression (-90 percent) takes hold for two months.

The cycle shown in Table 11-5 lasts until June of your city's 12th year. It then recycles and starts again at the beginning (e.g. the first 5 percent dip will occur in October 1914/1964/2014).

1. Column one shows the length of each era of the cycle (in months).
2. Column two is the percentage change in your Residential demand.
3. Columns three through five show how these eras manifest in actual gameplay, starting a city in 1900, 1950, or 2000. Beyond June of year 12, you must figure out the timing for yourself: get those old calendars out of the attic.

**Table 11-5. Residential Demand Changes Due to External Economic Trends**

| <i>Era Duration</i> | <i>Percentage Effect</i> | <i>Sim. Start 1900</i> | <i>Sim. Start 1950</i> | <i>Sim. Start 2000</i> |
|---------------------|--------------------------|------------------------|------------------------|------------------------|
| 27                  | 0%                       | Jan. 1900              | Jan. 1950              | Jan. 2000              |
| 3                   | -5%                      | Apr. 1902              | Apr. 1952              | Apr. 2002              |
| 13                  | 0%                       | Jul. 1902              | Jul. 1952              | Jul. 2002              |
| 2                   | -90%                     | Aug. 1903              | Aug. 1953              | Aug. 2003              |
| 14                  | 0%                       | Oct. 1903              | Oct. 1953              | Oct. 2003              |
| 6                   | -10%                     | Dec. 1904              | Dec. 1954              | Dec. 2004              |
| 20                  | 0%                       | Jun. 1905              | Jun. 1955              | Jun. 2005              |
| 2                   | -50%                     | Feb. 1907              | Feb. 1957              | Feb. 2007              |
| 3                   | +5%                      | Apr. 1907              | Apr. 1907              | Apr. 1907              |
| 18                  | 0%                       | Jul. 1907              | Jul. 1957              | Jul. 2007              |
| 2                   | -90%                     | Jan. 1909              | Jan. 1959              | Jan. 2009              |
| 22                  | 0%                       | Mar. 1909              | Mar. 1959              | Mar. 2009              |
| 4                   | -20%                     | Jan. 1911              | Jan. 1961              | Jan. 2011              |
| 4                   | +10%                     | May 1911               | May 1961               | May 2011               |
| 10                  | 0%                       | Sep. 1911              | Sep. 1961              | Sep. 2011              |
| —                   | Restart Cycle            | Jul. 1912              | Jul. 1962              | Jul. 2012              |



# DEMAND CAPS

There's more to life in the big city than having a job or a good local customer base. At some point, Sims start to want more out of their city and no new immigration will occur until certain needs are met. This is the concept behind "Demand Caps."

Each of your three kinds of population (Residential, Commercial, and Industrial) will grow freely until they reach certain population milestones:

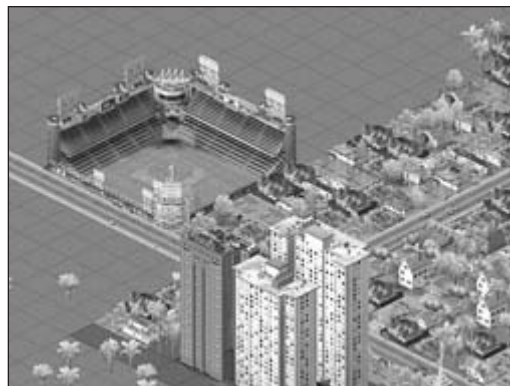


Fig. 11-14. Sims to mayor: Give us a Stadium or we're outta here. Recreation keeps your Residential population growing.



## NOTE

**Demand Caps refer not to general city population but to populations for each kind of zone. These figures are accessible through the Charts.**

- Residential: 25,000
- Commercial: 25,000
- Industrial: 70,000

No growth can occur after these milestones until you've given your Sims something they want. If you haven't done something to raise these Demand Caps, all demand for the affected zone type will simply dry up and no amount of tax altering or rezoning will have any effect. So, what is it they want?



Fig. 11-15. For Industrial and Commercial Sims, growth is ensured with Neighbor Connections, Airports, and Seaports.

# WHAT YOUR SIMS WANT: DEMAND CAP RELIEVERS

The things Sims require to grow beyond basic Demand Caps depends on what kind they are.

- Residential Sims want recreation and entertainment.
- Industrial and Commercial Sims want connections to neighboring cities and far away lands to expand their markets.

Several structures or connections provide “Demand Cap Relief,” increasing the amount your populations can grow without further relief. A Demand Cap Reliever’s amount of relief is added to the basic cap, allowing your population to grow until it reaches its new cap.



## TIP

**You can raise your city’s Demand Cap any time by adding other Cap Relievers. You don’t have to wait until you’re bumping against the cap.**

To illustrate, imagine a city without any recreational facilities such as Parks, Libraries, or Museums—a city without fun. Assuming everything is otherwise going well, it should have no difficulty building to 25,000 strong. Then it all stops; you’ve hit the Demand Cap. To go further, you must provide some entertainment.



## CROSS REFERENCE

**Recreational structures are discussed in Chapter 22 and Reward buildings in Chapter 27.**

A Zoo, for example, delivers Demand Cap Relief of 24,000. By placing this single structure, your population can grow to 49,000 (25,000 + 24,000) before you’ll need to add another Demand Cap Reliever.

The following table lists all Demand Cap Relievers and their impact on each type of zone.

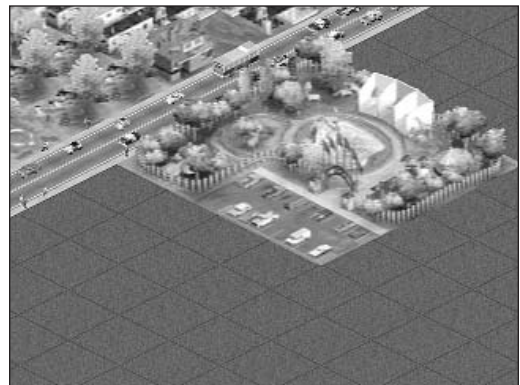


Fig. 11-16. This Zoo will allow your city to grow beyond 24,000. We’ll need another one to get to 73,000.



**Table 11-6. Demand Cap Relief by Zone Type**

| <i>Structure</i>            | <i>R Relief</i> | <i>C Relief</i> | <i>I Relief</i> |
|-----------------------------|-----------------|-----------------|-----------------|
| Airport                     | —               | 500/tile        | 100/tile        |
| Casino Row                  | 75,000          | —               | —               |
| City Hall                   | 9,000           | —               | —               |
| City Zoo                    | 24,000          | —               | —               |
| Country Club                | 37,500          | —               | —               |
| Fountain                    | 250             | —               | —               |
| Geyser Park                 | 25,000          | —               | —               |
| GigaMall                    | 25,000          | —               | —               |
| Highway Neighbor Connection | —               | 20,000          | 14,000          |
| Historic Statue             | 10,000          | —               | —               |
| Large Park                  | 2,250           | —               | —               |
| Library                     | 7,000           | —               | —               |
| Lighthouse                  | 6,000           | —               | —               |
| Marina                      | 9,000           | —               | —               |
| Mayor's House               | 6,000           | —               | —               |
| Museum                      | 9,000           | —               | —               |
| Performing Arts Center      | 48,000          | —               | —               |
| Playground                  | 1,000           | —               | —               |
| Pond                        | 1,000           | —               | —               |
| Rail Neighbor Connection    | —               | —               | 25,000          |
| Road Neighbor Connection    | —               | 12,000          | 12,000          |
| Seaport                     | —               | 100/tile        | 250/tile        |
| Small Park                  | 250             | —               | —               |
| Spaceport                   | 750,000         | 750,000         | 750,000         |
| Sports Park                 | 4,000           | —               | —               |
| Stadium                     | 125,000         | —               | —               |
| Subway Neighbor Connection  | —               | 25,000          | —               |
| Theme Park                  | 200,000         | —               | —               |



## CROSS REFERENCE

Neighbor Connections are discussed in Chapter 24.

In reality, it's unlikely that you'll hit many of these caps without having added something that provides relief. There are so many other benefits to putting down Parks and Libraries (enhanced land value, educational benefits, etc.) and making connections to your neighbors (ability to make Neighbor Deals) that you could, conceivably, know nothing of Demand Caps and still manage to avoid their effects. The exceptions to this rule of thumb are Airports and Seaports.

## AIRPORTS AND SEAPORTS

Many mayors are under the mistaken impression that these ports *increase demand*. Not so.



## CROSS REFERENCE

Details on laying down and developing Airports and Seaports can be found in Chapters 10 and 12.

What they do is provide Demand Cap Relief. Once your Industrial population, for example, reaches its basic cap (70,000), it can only grow further if you build Neighbor Connections, a Seaport, or, to lesser effect, an Airport.

Airports and Seaports provide relief proportional to their size; the cap rises as each *tile* of port develops. Ports, in turn, only expand to be as large as they must be to leave cap headroom.

As such, don't overdo these expensive zones; add only a few tiles at a time and don't add more until they all develop. This will help you stay ahead of Industrial and Commercial Demand Caps.



Fig. 11-17. Airports and Seaports don't increase demand, but they do provide a modular form of Demand Cap Relief.

# DEMAND AND DEVELOPMENT

Development will only occur if there is demand. It is possible, however, to have demand but no development—all the demand in the world won't make an unattractive piece of land worth developing.

**CROSS REFERENCE**

The full skinny on development can be found in Chapter 12.

Factors that prevent development in spite of demand are:

- Land value too high for zoned use (e.g., Agriculture, dirty industry)
- Lack of water in medium and high density zones
- Passage of certain (anti-dirty industry) Ordinances
- Pollution (Agriculture only)
- Radiation Contamination

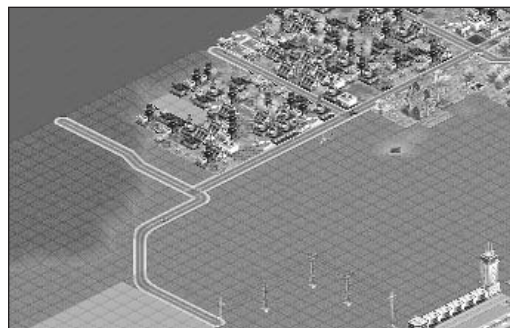


Fig. 11-18. You've laid down the zone, now why won't the Farm grow? That pollution may be the problem.

If, for instance, you zone an unwatered tile as high density Residential, it could develop low density buildings. It might also not develop at all. Likewise, if you've passed several anti-dirty industry Ordinances, but have not sufficiently laid the groundwork for the emergence of clean industry, you'll have empty Industrial zones.

**CROSS REFERENCE**

Developing clean industry gets special attention in Chapter 30.



## ORDINANCES

Several Ordinances directly and indirectly impact demand.

### AEROSPACE TAX INCENTIVE

- Department: City Planner
- Year Available: 1960
- Prerequisites: Must have Airport
- Monthly Cost: §0.0001 per clean industry tile
- Pro: Increases demand for clean industry
- Con: Costs money

Attract the lucrative aerospace industry to your city by offering them juicy tax subsidies. These subsidies show in your budget under Ordinance expenditures. In effect, this adds 3 percent to the probability of clean industry developing.

## BIOTECH TAX INCENTIVE

- Department: City Planner
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: §0.0001 per clean industry tile
- Pro: Increases demand for clean industry
- Con: Costs money

Attract the biotechnology industry to your city by offering them big tax subsidies. These subsidies show in your budget under Ordinance expenditures. In effect, this adds 4 percent to the probability of clean industry developing.

## CLEAN AIR

- Department: Environment
- Year Available: 1950
- Prerequisites: None
- Monthly Cost: §0.0001 per Sim
- Pro: Lowers pollution, discourages dirty industry
- Con: Costs money, discourages dirty industry

This Environmental Ordinance reduces global air pollution by 10 percent and chokes the probability of dirty industry by 3 percent. The latter effect can be positive if your city has a high probability of attracting clean industry. Otherwise, this Ordinance will scare away the only kind of industry you have, the dirty kind, leaving you with empty Industrial zones.



## CLEAN INDUSTRY ASSOCIATION

- Department: City Planner
- Year Available: 1930
- Prerequisites: None
- Monthly Cost: \$0.0001 per Industrial tile
- Pro: Increases clean industry, decreases dirty industry
- Con: Costs money, decreases dirty industry

A small fee goes to the association dedicated to attracting nonpolluting industries to its member cities. This Ordinance simultaneously decreases the probability of dirty industry by 2 percent and raises the probability of clean industry by 2 percent. If your city isn't otherwise attractive to clean industry, the reduction of dirty industry could leave you with empty Industrial zones.

## CONSERVATION CORPS

- Department: City Planner
- Year Available: 1915
- Prerequisites: None
- Monthly Cost: \$0.0003 per dirty industry tile
- Pro: Increases clean industry, decreases crime, water pollution, and garbage output
- Con: Costs money

The Conservation Corps works to beautify the city by picking up trash. It's funded through a monthly fee paid by your town's polluters. The probability of clean industry is raised by 4 percent while global crime is reduced by 8 percent. It also reduces water pollution and garbage output by 7 percent.

## ELECTRONICS TAX INCENTIVE

- Department: City Planner
- Year Available: 1950
- Prerequisites: None
- Monthly Cost: \$0.0001 per clean industry tile
- Pro: Increases clean industry
- Con: Costs money

To help encourage the immigration of nonpolluting industry, you can pass this tax subsidy, available to any clean industry that moves to your city. This subsidy increases the probability of clean industry by 3 percent.

## ELECTRONICS JOB FAIR

- Department: City Planner
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: \$0.0001 per Residential tile
- Pro: Increases clean industry
- Con: Costs money

Your city can volunteer to pay for an annual job fair for the electronics industry. This event makes your city more attractive to clean industry to the tune of 5 percent increased probability.

## FARMER'S MARKET

- Department: City Planner
- Year Available: 1900
- Prerequisites: None
- Monthly Cost: \$0
- Pro: Increases Agricultural development
- Con: None

Setting up the Farmer's Market in your city makes farmers much more likely to establish Farms in your city. In fact, the probability increases by 10 percent.



## INDUSTRIAL POLLUTANT IMPACT FEE

- Department: City Planner
- Year Available: 1950
- Prerequisites: More than 500 developed Industrial tiles
- Monthly Income: \$0.004 per dirty industry tile
- Pro: Decreases dirty industry and pollution, earns money
- Con: Decreases dirty industry

This anti-pollution measure targets your city's dirty industry to offset the cost of any future clean-ups. You can, however, use this money for whatever purpose you wish as it appears as Ordinance Income in your Budget window. It decreases the probability of dirty industry by 4 percent and reduces pollution by 10 percent. Don't pass it if you haven't laid the foundation for attracting clean industry; if dirty industry flees with nothing to replace it, your Industrial zones will be empty.

## INDUSTRIAL WASTE DISPOSAL TAX

- Department: Environment
- Year Available: 1950
- Prerequisites: None
- Monthly Income: \$0.0005 per Commercial and Industrial tile
- Pro: Generates Income, reduces garbage
- Con: Lowers demand for Commercial and Industrial

This garbage tax is applied to all Industrial and Commercial inhabitants of your city, and the resulting revenue appears as Ordinance Income in your Budget window. It also results in a reduction in garbage by 5 percent. Unfortunately, it also inhibits demand for both Commercial and Industrial zones by 2 percent and 8.5 percent, respectively.



## LAWN CHEMICAL BAN

- Department: Environment
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim plus 5 times number of Park tiles
- Pro: Reduces water pollution
- Con: Costs money, decreases Agricultural development

Your city can ban all use of polluting lawn chemicals but you must, in turn, spend money on finding viable alternatives. This well-meaning act decreases water pollution by 8 percent but also decreases the probability of Agricultural development by 10 percent.

## POWER CONSERVATION

- Department: Utilities
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim plus 5 times number of Power Plants
- Pro: Reduces power consumption
- Con: Costs money, lowers Industrial demand

This measure expends money to educate the populace about power conservation and, consequently, lowers citywide power consumption by 10 percent. Unfortunately, quarrelsome Industrial inhabitants hate this intrusion of government; their reaction reduces Industrial demand by 3 percent of current demand.

## PUBLIC ACCESS CABLE

- Department: City Planner
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: \$0.0002 per Sim
- Pro: Increases clean industry
- Con: Costs money



Offering this valuable educational service to the populace tells the nonpolluting communications industry that your city would be a good home. The probability of clean industry developing is, therefore, boosted by 2 percent.

## TOURIST PROMOTION

- Department: City Planner
- Year Available: 1900
- Prerequisites: Must have more than 25 Commercial buildings
- Monthly Cost: \$0.023 per Sim
- Pro: Increases Commercial demand
- Con: Costs money, increases traffic, and decreases Industrial demand

Bringing tourists to your city will cost you some treasury cash but will pay off in a 15 percent increase in Commercial demand. On the downside, it increases Road and Rail traffic by 5 percent and decreases Industrial demand by 1.5 percent.

## WATER CONSERVATION

- Department: Utilities
- Year Available: 1960
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim plus number of buildings
- Pro: Reduces water consumption
- Con: Costs money, lowers Industrial demand

This measure expends money to educate the populace about water conservation and, consequently, lowers citywide water consumption by 10 percent. Unfortunately, quarrelsome Industrial inhabitants hate this intrusion of government; their reaction reduces Industrial demand by 3 percent (of whatever current usage may be).

## SUMMARY: COMMANDING DEMAND

All of this knowledge is meant to equip you to do one thing: control demand in your city. Total control over demand is nearly impossible, or at least very confusing, but you can still direct the winds of demand generally where you want them to go.

# DEVELOPMENT

Once you've got your zones laid down, what happens next is largely out of your hands. It's now your Sims' turn to decide, using a dizzying array of factors, what to build on those zones.

## DEVELOPMENT IN GENERAL

Though you have no control over the development process, it's important to understand what's going on. You can, of course, guide the direction of development with your zoning choices, but you can also learn a lot about how your city is doing by observing how it's developing. Let's take a ride with the developers.

## DEVELOPMENT SURVEYS

A developer's job is to sweep across your city *every month*, visiting as many tiles as possible and checking them to see if they can be developed or need to be changed in some way.

You see their decisions in action with the flurry of activity that occurs all over your city, especially when you crank up the speed. All over, buildings are shifting, changing, falling into disrepair, reincarnating. At high zooms, an actively developing city looks like popcorn popping.



Fig. 12-1. Buildings are changing all over the city. This is the work of your Sim developers.



### TIP

Developers cannot visit *every tile* on every pass. Some lag is inevitable. Certain tiles may, therefore, take several months to react to a change in conditions.

## DEVELOPMENT RULES

Developers follow a complex set of rules and strict logical progressions to make their determinations. It's these rules and decision-making processes that you must understand to be able to "read" your city's development.



Developers must make two determinations:

- Whether to develop
- What to develop

## WHETHER TO DEVELOP

When the developers choose an undeveloped tile or group of tiles to inspect, they must ask and answer the following questions:

- Is there demand for this zone?
- Is it powered?
- Is the tile close enough to transportation?
- Is the tile free of radiation?
- Do land value and space allow for any buildings suitable to the tiles' zone and density?

If the answer to all of these questions is “yes,” the tile(s) will begin to develop.

## IS THERE DEMAND FOR THIS ZONE?



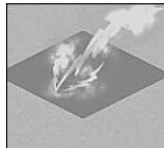
Fig. 12-2. When the RCI Demand Indicator looks like this, nothing will develop.

If there is zero or negative demand for a zone type, empty tiles zoned for that type will not develop.



### NOTE

“Land use” refers to the zone type, density, and land value of a given tile. It is expressed, for example, as “medium density, low land value Residential.”



## IS IT POWERED?

Electricity is a prerequisite to all RCI development. If there's no juice, the tile will remain empty.



Fig. 12-3. The lightning bolt symbol means that the zone lacks power. Convey it via other powered buildings and zones or by power lines.

## IS THE TILE CLOSE ENOUGH TO TRANSPORTATION?

To develop, a tile must be within a given number of tiles from a transportation network. The precise figure depends on the zone:

- Residential: 4 tiles
- Commercial: 3 tiles
- Industrial: 5 tiles



Fig. 12-5. ...you pass the Shuttle Ordinance, increasing the allowable distance to transportation by one.



Fig. 12-4. The center of this Commercial zone is too far away from the Road. It won't develop unless...

If you choose to pass the Shuttle Ordinance, all of these numbers increase by one. With this change, two things occur: Sims will look one tile farther for transportation, and development can occur one tile farther away from transportation.

**CROSS REFERENCE**

See Chapter 18 for more information on transportation, the Shuttle Ordinance, and the concept of "trips."

## IS THE TILE FREE OF RADIATION?

It's rare that you'll need to worry about this, but it can happen. If your city has suffered a Nuclear Power Plant explosion, all land in a 40-tile radius will be contaminated with radiation. Contaminated tiles cannot be developed. If you see the telltale radiation symbol on a tile, forget about ever developing it.



Fig. 12-6. None of these zones will ever see development again.

## DO LAND VALUE AND SPACE ALLOW FOR ANY BUILDINGS SUITABLE TO THE TILES' ZONE AND DENSITY?

This question determines if any structures exist that can be placed in a zone. A  $2 \times 2$  high density/high land value block will, for example, not be able to accommodate the  $3 \times 3$  skyscraper because of its land use requirement.

If no building can be found to fit on the block, the tiles in it will not develop.



Fig. 12-7. This high density, high value zone will never develop because it can't accommodate a large enough structure.

# WHAT TO DEVELOP

If a tile or tiles qualify for development, a new issue arises: what will the Sims build on the tile(s)?

This too depends on a series of questions:

- What is the land value of the tile?
- Is it watered?
- Do clean industry triggers—high EQ, Ordinances—exist? (Industrial zones only)
- Do Agricultural triggers—low pollution, distance from city, etc.—exist? (Industrial zones only)

## WHAT IS THE LAND VALUE OF THE TILE?

Land value is the largest factor in determining what is built on a given block.

### **SPECIAL RESIDENTIAL DEVELOPMENT RULES: ESTATES AND ROW HOUSES**

Two special development rules beautify medium and high value residential zones.

The **Row House Rule** adds a snazzy visual element to your medium value/medium density zones—a line of townhouse-style structures adjacent to the Road, with filler tiles behind. If you set up a medium density/medium value Residential zone of at least  $6 \times 6$  and no more than  $8 \times 8$  ( $8 \times 6$  seems to work best), you'll have a 33 percent chance of seeing a fashionable urban Row House block.



Fig. 12-8. A line of Row Houses can be a lovely addition to your city. Setting up zones in the proper conditions tells your developers that you want Row Houses.





The **Estate Rule** has a very similar effect on the even more elegant low density/high value Residential neighborhoods. Immense houses form in the midst of rolling lawns, surrounded by stone walls or ornate wrought-iron fences. If you zone a block of at least  $4 \times 4$  but no more than  $6 \times 6$ , you have a 50 percent chance of seeing the “polo set” move into your city.

Keep in mind that these special developments are just as susceptible to shifts in demand and can, therefore, be abandoned or redeveloped as something else entirely. If you want to preserve these distinctive features, see Historical Designation.



Fig. 12-9. Estates lend that air of, well, money to your town. You can make them happen with proper zoning and good luck.

12

DEVELOPMENT



### CROSS REFERENCE

For elements impacting land value, see Chapter 13.

Based on several factors (relative elevation, proximity to terrain water and the City Center, pollution, etc.) the tiles of an established zone are assigned land values and a density from among those available in that zone.



### NOTE

Remember, zones can permit more than one density:

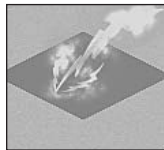
- Low density can host only low density.
- Medium density can host low and medium density.
- High density can host low, medium, and high density.

With the combination of the tile's zone, density, and land value, we know the tile's land use. From this, the developers decide how much of a block of zoned tiles will be buildings or filler tiles and choose from all available structures in the given land use.



### CROSS REFERENCE

For a pictorial directory of buildings by land use, see Appendix B.



## IS IT WATERED?

Zones can develop without water. That's why this question was not among those that determine *whether* development will occur.

The catch is, they can't develop very far. The effect of a lack of water varies with zone:

- Residential: Will only develop low density/low value or low density/medium value
- Commercial: Will only develop low density, low-medium value
- Industrial: Will only develop low density dirty and low density clean
- Agriculture: Water not required
- Airport, Seaports: No development

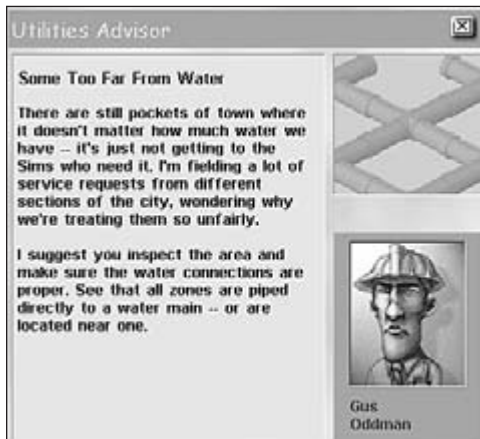


Fig. 12-10. You can leave low density dirty Industrial zones unwatered because they'll never acquire the higher values that would prevent development. You will, however, have to endure constant reminders about the inadequacy of your water system.

## DO CLEAN INDUSTRY TRIGGERS EXIST? (INDUSTRIAL ZONES ONLY)

If the proper prerequisites for clean industry are present, your Industrial zones will develop as nonpolluting clean industry instead of conventional dirty industry.

With some foresight and aggressive city management, you can (over time) convert your dirty, polluting heavy Industrial base into a humming, clean, hi-tech sector you'd be proud to build next to your Residential zones.

Attracting clean industry to your city is a long and delicate affair; you have to increase the probability of clean industry without prematurely chasing away your dirty Industrial citizens. If you discourage the old-school industries, you'll find yourself with empty Industrial zones and lots of unemployed Residential Sims.



Fig. 12-11. If you fortify your Sims' Education Quotient over a long period and pass appropriate Ordinances, you'll begin to see clean industry move in to replace the polluting dirty industry. It's easy to see when it does arrive—it's very clean.

**CROSS REFERENCE**

There's so much to this most rewarding endeavor that it needs to be addressed on its own. See Chapter 30 for the fine details of bringing in the ultimate prize: the future.

## DO AGRICULTURAL TRIGGERS EXIST? (INDUSTRIAL ZONES ONLY)

A low density Industrial zone can grow into a bountiful Farm under proper conditions.

To become a Farm, an Industrial zone must be or have:

- Tiles with low or no pollution
- A block of at least  $8 \times 8$ , but no more than  $18 \times 18$
- Zoned Light Industrial
- Tiles of low land value
- Powered
- A Road on at least one side (but no more than three sides) of the zoned block
- Each tile within 9 tiles of a Road

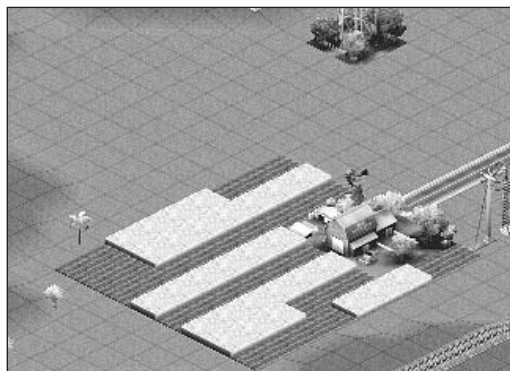


Fig. 12-12. If you zone properly, you stand a good chance of bringing agriculture to your city. It's the original clean industry.

**CROSS REFERENCE**

Detailed descriptions of each of these conditions can be found in Chapter 10.

With all these factors, there's a 30 percent chance that a Farm will develop. If you've enacted the Farmer's Market Ordinance, that probability rises to 40 percent.

**TIP**

Occasionally, Farm tiles will redevelop as smoggy industrial structures. As long as these structures exist, they're polluting the rest of the Farm. Simply demolishing them won't get your Farm back. To reclaim the land, cut the power to the Farm, and wait for air pollution to dissipate. Once it drops, reestablish power and your Farms will return.

# CONSTRUCTION

Once an RCI tile has been selected for development and a structure's been chosen, it enters the construction stage.



## NOTE

Only RCI structures have construction states. All other buildings (specialty zones, city services, municipal, utility, Rewards, etc.) appear immediately when placed.



Fig. 12-13. Construction has begun. But will it be completed?



Fig. 12-14. This building was selected to emerge from construction state.

This phase, represented on the map as a building under construction, persists until the building becomes occupied. Each month after construction begins, there's a probability that construction will be completed and the building will spring to life. This probability depends on size:

- $1 \times 1$ : 75 percent chance of becoming occupied
- $2 \times 2$ : 37 percent chance of becoming occupied
- $3 \times 3$ : 25 percent chance of becoming occupied
- $4 \times 4$ : 19 percent chance of becoming occupied

What this means in practice is that large buildings usually take longer to build than small ones. If, during construction, a tile becomes ineligible for its chosen land use, the construction state will persist until the zones requalify.



# SPECIALTY ZONES AND DEVELOPMENT

Airports and Seaports do not follow the same development logic as RCI zones. They do, however, follow several rules that, if satisfied, permit development to begin.



## AIRPORTS

Airport zones must be:

- At least  $3 \times 5$
- Watered
- Powered
- Within 5 tiles of a Road, Subway Station, or Train Station
- Far away from tall buildings



### CROSS REFERENCE

Detailed explanations of these rules can be found in Chapter 10.

There is no demand, per se, that dictates whether an Airport develops; if the rules are followed, all areas you zone will develop. Airport size is based on your ability to afford expensive zones and tolerate their large Pollution Effects.



### CROSS REFERENCE

Airports serve as “Demand Cap Lifters” for Commercial and Industrial growth. For more on this topic, see Chapter 11.

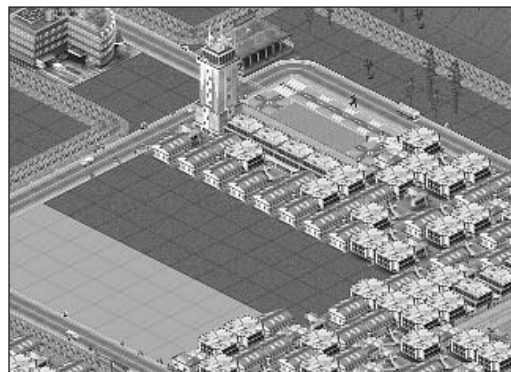


Fig. 12-15. Airports (and Seaports) will develop so long as their development rules are followed. If you can afford to zone a huge Airport, go ahead. Just don't come crying about all the pollution.





## SEAPORTS

To develop a Seaport, your zones must:

- Be within 1 tile of a navigable body of water
- Feature a straight coastline at least 5 tiles long
- Have a near-sea-level coastline
- Have 5 tiles of water in front of each coastline tile
- Provide water to all zones
- Provide power to all zones
- Have coastline tiles no more than 7 tiles from transportation

There is no demand that dictates whether a Seaport develops; if the rules are followed all areas you zone will build. Seaport size is based purely on your ability to afford these very expensive zones and tolerance of their tremendous Pollution Effect.

A Seaport will only develop to the extent that its services are required. If, for example, your initial zoning of  $5 \times 5$  doesn't entirely develop, it means that your Industrial population isn't yet large enough to require a larger Seaport.



### CROSS REFERENCE

Seaports serve as "Demand Cap Lifters" for Commercial and Industrial growth. For more on this topic, see Chapter 11.

## ABANDONMENT

An established building can, if conditions turn against it, become abandoned. An abandoned building pays no taxes and is ugly to look at, so it's in your interest to keep your structures humming and alive.

Abandonment can also be a symptom of a much larger problem; if you start seeing large-scale abandonment, pause the simulation and take a closer look.



Fig. 12-16. Abandoned buildings are bad news for your city and they're tragic eyesores. Treat them as a call for help and try to bring them back to life quickly.



Abandonment can be caused by:

- Negative demand
- Cutoff of power or water
- Loss of transportation access
- Trip failure
- Radiation

## NEGATIVE DEMAND

If demand drops below zero, your Sims start to move out, leaving their hollow structures behind.

## CUTOFF OF POWER OR WATER

If power or water is cut off to a structure, there's a fixed probability that this will result in abandonment. This percentage differs by zone and is divided by the size of the building:

- Residential: 15 percent
- Commercial: 35 percent
- Industrial: 30 percent

For example, a  $3 \times 3$  Residential building will have a 5 percent ( $15 \div 3$ ) chance of abandonment due to utility cut-off while a  $2 \times 2$  Industrial structure suffers a 15 percent ( $30 \div 2$ ) chance. Large buildings take longer to become abandoned than smaller ones.

Residential is the least sensitive to cut-offs and Commercial is the most sensitive.

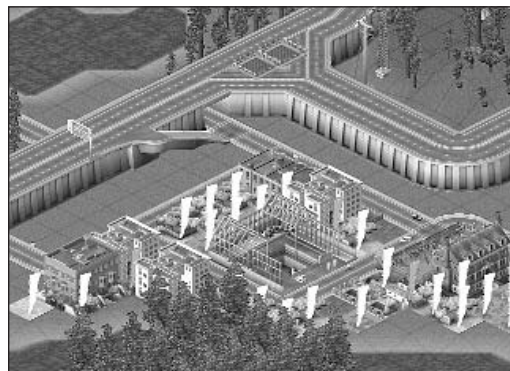


Fig. 12-17. Power cutoffs are easy to see: look for the lightning bolt and do something before the structures are abandoned.



### NOTE

Recall that buildings can exist without water service. A low density/low value structure, for example, won't be abandoned if water's cut off. For higher value, higher density buildings, however, the situation is different. If water is cut off, they will be downgraded as far as their land use and value allow. If they cannot drop to either low density/low value or low density/medium value, they become subject to the cut-off probabilities for abandonment.



## LOSS OF TRANSPORTATION ACCESS

To develop and remain inhabited, a zoned tile must be a certain distance from transportation (Road, On-Ramp, Subway Station, Train Station, etc.). If a Sim can't find transportation from that tile, it will be abandoned.

What this distance is depends on two things: zone type and the Shuttle Ordinance. The zone type dictates how far away from transportation a tile can be. The Shuttle Ordinance increases the distance-to-transportation number for each zone type by 1.

- Residential: 4 tiles (5 with Shuttle Ordinance)
- Commercial: 3 tiles (4 with Shuttle Ordinance)
- Industrial: 5 tiles (6 with Shuttle Ordinance)

If a transportation mode is destroyed or moved, a tile formerly dependent on it will become abandoned. This often happens when a Road is moved.



### TIP

Another common cause for abandonment is the repeal of the Shuttle Ordinance; suddenly, all the tiles developed due to the increase in transportation radius start to wither.

## TRIP FAILURE

If Sims cannot get to where they want to go (due to traffic, excessive distance, or other impediment) they will give up and go home. If this happens enough times, your Sims will abandon their structures, leaving empty shells until you can improve transportation efficiency.



Fig. 12-18. Where'd the Road go? Remember transportation access if you move a Road. If you don't, all zones dependent on the missing transit will be abandoned.



Fig. 12-19. Excessively potholed Roads can cause trips to fail and, in turn, buildings to be abandoned.



## RADIATION

A nuclear explosion contaminates all buildings in a 40-tile radius for thousands of years. All structures are instantly abandoned and will stay that way unless demolished. There is nothing you can do but go back to your last saved game.

## UPGRADE/DOWNGRADE LOGIC

An established structure can change at any time.

### UPGRADE

Periodically, the developers check on structures to see if they require an upgrade. If land value has gone up or demand is calling for a higher density (and the structure's zoning can accommodate a higher density), the building may be upgraded according to the developer rules laid out earlier in this chapter.

If a structure is found to have increased in land value or be able to accommodate a density jump, there is a 30 percent chance that the structure will be upgraded.

If an abandoned structure is chosen to be redeveloped at a higher land use, it enters construction stage. If, on the other hand, it merely recovers to its previous state, it instantly reverts to its pre-abandonment form.

## DOWNGRADE

If the land value under a structure drops, it can be downgraded to a lower land use.

The probability of this occurring depends on the structure's zone:

- Residential: 30 percent
- Commercial: 10 percent
- Industrial: 30 percent

## DEVELOPER CHURN

Sometimes, as in real life, things change just for the sake of changing. In *SimCity 3000*, this is called “developer churn” and represents a random alteration of buildings just to keep things interesting.

There is always a probability that a building will spontaneously change into another building with the same land use. For each zone, this probability is:

- Residential: 3 percent
- Commercial: 1 percent
- Industrial: 1 percent

Like all redevelopment, random reassignments can be stopped by designating the structure Historical.

## HISTORICAL DESIGNATION

If you want to freeze a building just the way it is, you can designate it Historical via the Query box.

A Historical structure cannot be upgraded or downgraded by the simulation. It can, however, be abandoned if conditions decline. In this case, when things revert to their prior or better condition, the building will return to its former glory.



Fig. 12-20. To prevent a building from developing into another, you can check this square in the Query box to designate it a Historical property. Remember, though, it can still be abandoned if times are tough.

**TIP**

Historical Designation is a great way to preserve buildings that are hard to get. Use it to:

- Keep Farms from reverting to normal Industrial structures.
- Inoculate your Row Houses or Estates from the effects of upgrade, downgrade, or developer churn.
- Decrease pollution by locking in clean Industrial buildings as they appear (this can have negative side effects).

**TIP**

Marking Farms, Row Houses, and Estates Historical can be a time-consuming process. You have to place the designation on every square of wheat field and rolling lawn to keep things the way they are.

12

DEVELOPMENT



## ORDINANCES

The following Ordinances impact Development.

### AEROSPACE TAX INCENTIVE

- Department: City Planner
- Year Available: 1960
- Prerequisites: Must have Airport
- Monthly Cost: §0.0001 per clean industry tile
- Pro: Increases demand for clean industry
- Con: Costs money

Helps to attract the lucrative aerospace industry to your city by offering them juicy tax subsidies. These subsidies show in your budget under Ordinance expenditures. In effect, this adds 3 percent to the probability of clean industry developing.

## BIOTECH TAX INCENTIVE

- Department: City Planner
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: \$0.0001 per clean industry tile
- Pro: Increases demand for clean industry
- Con: Costs money

Helps to attract the biotechnology industry to your city by offering them big tax subsidies. These subsidies show in your budget under Ordinance expenditures. In effect, this adds 4 percent to the probability of clean industry developing.

## CLEAN AIR

- Department: Environment
- Year Available: 1950
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim
- Pro: Lowers pollution, discourages dirty industry
- Con: Costs money, discourages dirty industry

This Environmental Ordinance reduces global air pollution by 10 percent and chokes the probability of dirty industry by 3 percent. The latter effect can be positive if your city has a high probability of attracting clean industry. Otherwise, this Ordinance will scare away the only kind of industry you have, the dirty kind, leaving you with empty Industrial zones.

## CLEAN INDUSTRY ASSOCIATION

- Department: City Planner
- Year Available: 1930
- Prerequisites: None
- Monthly Cost: \$0.0001 by Industrial tile
- Pro: Increases clean industry, decreases dirty industry
- Con: Costs money, decreases dirty industry



A small fee goes to the association dedicated to attracting nonpolluting industries to its member cities. This Ordinance simultaneously decreases the probability of dirty industry by 2 percent and raises the probability of clean industry by 2 percent. If your city isn't otherwise attractive to clean industry, the reduction of dirty industry could leave you with empty Industrial zones.

## CONSERVATION CORPS

- Department: City Planner
- Year Available: 1915
- Prerequisites: None
- Monthly Cost: \$0.0003 per dirty industry tile
- Pro: Increases clean industry, decreases crime, water pollution, and garbage output
- Con: Costs money

The Conservation Corps works to beautify the city by picking up trash. It's funded through a monthly fee paid by your town's polluters. The probability of clean industry is raised by 4 percent while global crime is reduced by 8 percent. It also reduces water pollution and garbage output by 7 percent.

## ELECTRONICS TAX INCENTIVE

- Department: City Planner
- Year Available: 1950
- Prerequisites: None
- Monthly Cost: \$0.0001 per clean industry tile
- Pro: Increases clean industry
- Con: Costs money

To help encourage the immigration of nonpolluting industry, you can pass this tax subsidy, available to any clean industry that moves to your city. It increases the probability of clean industry by 3 percent.

## ELECTRONICS JOB FAIR

- Department: City Planner
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: \$0.0001 per Residential tile
- Pro: Increases clean industry
- Con: Costs money

Your city can volunteer to pay for an annual job fair for the electronics industry. This event makes your city more attractive to clean industry to the tune of 5 percent increased probability.

## FARMER'S MARKET

- Department: City Planner
- Year Available: 1900
- Prerequisites: None
- Monthly Cost: \$0
- Pro: Increases Agricultural development
- Con: None

Setting up the Farmer's Market in your city makes farmers much more likely to establish Farms in your city. In fact, the probability increases by 10 percent.

## INDUSTRIAL POLLUTANT IMPACT FEE

- Department: City Planner
- Year Available: 1950
- Prerequisites: More than 500 developed Industrial tiles
- Monthly Income: \$0.004 per dirty industry tile
- Pro: Decreases dirty industry and pollution, earns money
- Con: Decreases dirty industry





This anti-pollution measure targets your city's dirty industry to offset the cost of any future clean-ups. You can, however, use this money for whatever purpose you wish since it appears as Ordinance Income in your Budget window. This measure decreases the probability of dirty industry by 4 percent and reduces pollution by 10 percent. Don't pass it if you haven't laid the foundation for attracting clean industry; if dirty industry flees with nothing to replace it, your Industrial zones will be deserted.

## INDUSTRIAL WASTE DISPOSAL TAX

- Department: Environment
- Year Available: 1950
- Prerequisites: None
- Monthly Income: §0.0005 per Commercial and Industrial tile
- Pro: Generates Income, reduces garbage
- Con: Lowers demand for Commercial and Industrial zones

This garbage tax is applied to all Industrial and Commercial inhabitants of your city and the resulting revenue appears as Ordinance Income in your Budget window. It also results in a reduction in garbage by 5 percent. Unfortunately, it also inhibits demand for both Commercial and Industrial zones by 2 percent and 8.5 percent, respectively.

## LAWN CHEMICAL BAN

- Department: Environment
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: §0.0001 per Sim plus 5 times the number of Park tiles
- Pro: Reduces water pollution
- Con: Costs money, decreases Agricultural development

Your city can ban all use of polluting lawn chemicals but you must, in turn, spend money on finding viable alternatives. This well-meaning act decreases water pollution by 8 percent but decreases the probability of Agricultural development by 10 percent.

## POWER CONSERVATION

- Department: Utilities
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim plus 5 times the number of Power Plants
- Pro: Reduces power consumption
- Con: Costs money, lowers Industrial demand

This measure expends money to educate the populace about power conservation and, consequently, lowers citywide power consumption by 10 percent. Unfortunately, quarrelsome Industrial inhabitants hate this intrusion of government; their reaction reduces Industrial demand by 3 percent.

## PUBLIC ACCESS CABLE

- Department: City Planner
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: \$0.0002 per Sim
- Pro: Increases clean industry
- Con: Costs money

Offering this valuable educational service to the populace tells the nonpolluting Communications industry that your city would be a good home. Probability of clean industry developing is, therefore, boosted by 2 percent.

## SHUTTLE SERVICE

- Department: City Planner
- Year Available: 1900
- Prerequisites: Must have Bus, Rail, *or* Subway in your city
- Monthly Cost: \$0.001 per Sim plus 2 times the number of Bus Stops
- Pro: Increases distance Sims go to find transportation
- Con: Costs money



A free Shuttle Service makes your entire populace more mobile. As noted, the Shuttle Ordinance increases the distance each type of Sim will travel to find transportation (Residential: 5, Commercial: 4, Industrial: 6). It also allows development to occur 1 tile farther from transportation (for example, Residential zones can now be 5 deep instead of 4 deep).

## TOURIST PROMOTION

- Department: City Planner
- Year Available: 1900
- Prerequisites: Must have more than 25 Commercial buildings
- Monthly Cost: \$0.023 per Sim
- Pro: Increases Commercial demand
- Con: Costs money, increases traffic, and decreases Industrial demand

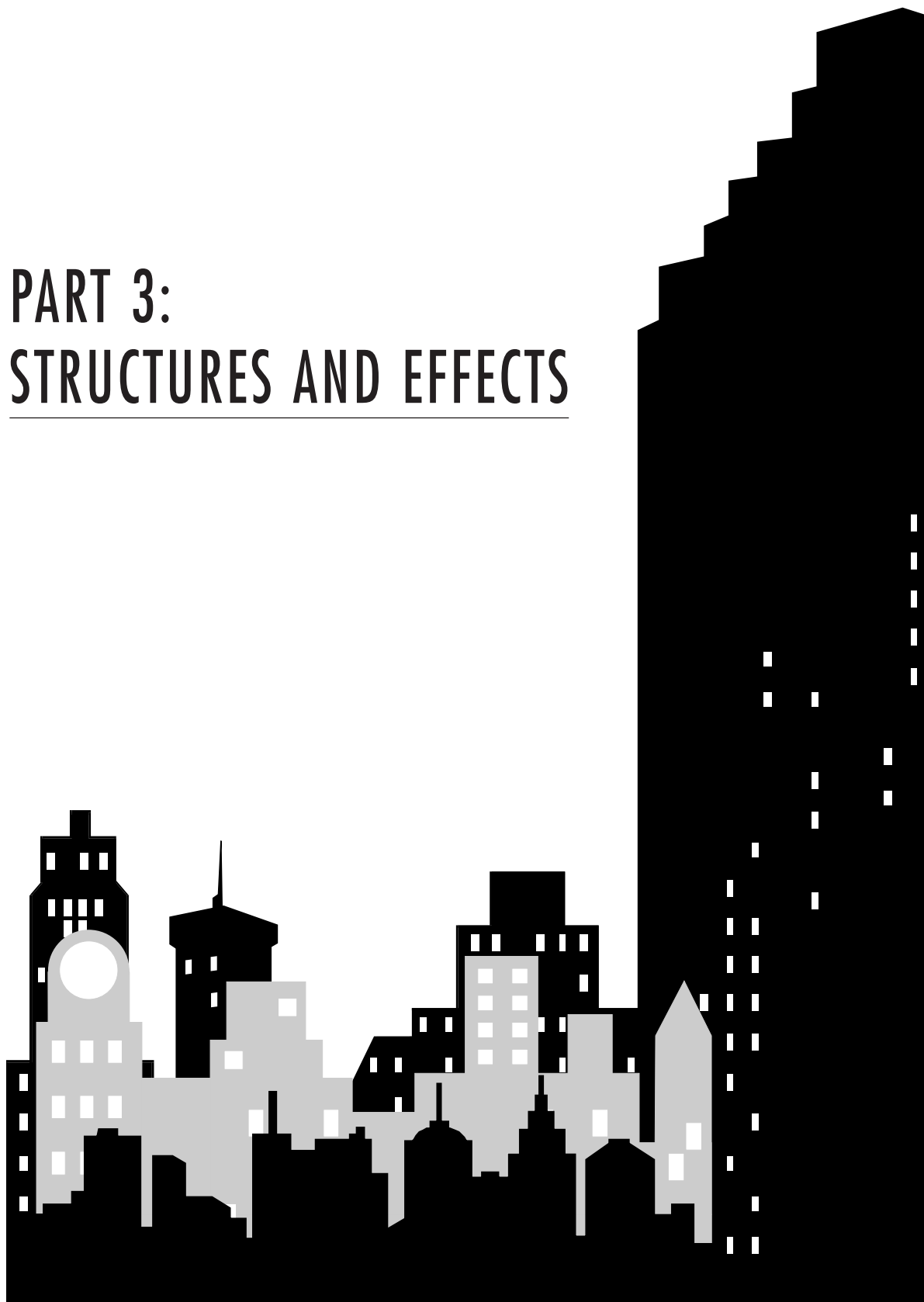
Bringing tourists to your city will cost you some treasury cash but will pay off in a 15 percent increase in Commercial demand. On the downside, it increases Road and Rail traffic by 5 percent and decreases Industrial demand by 1.5 percent.

## WATER CONSERVATION

- Department: Utilities
- Year Available: 1960
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim plus number of buildings
- Pro: Reduces water consumption
- Con: Costs money, lowers Industrial demand

This measure expends money to educate the populace about water conservation and, consequently, lowers citywide water consumption by 10 percent. Unfortunately, quarrelsome Industrial inhabitants hate this intrusion of government; their reaction reduces Industrial demand by 3 percent (of whatever current usage may be).

# PART 3: STRUCTURES AND EFFECTS





Almost no structure, not even a tree, can exist in *SimCity 3000* without somehow affecting its neighbors. In fact, a given structure can make itself overtly felt in up to four different ways: land value, pollution, crime, and aura.

These concepts are often confused and muddled due to their similarities and overlaps. For example, a Power Plant is undesirable as a neighbor because it produces pollution. However, it also independently reduces land value by simply existing and by causing local pollution levels to rise. These are all separate effects that have a wide array of consequences. It's particularly confusing because pollution seems to enter the equation twice: as a negative effect on land value and as a contributor to pollution in general.

To clear up this murky area of structure effects, we addressed each concept independently. Try to keep the distinctions in mind because confusing them can obscure important subtleties. Really study this section to understand the interrelationships of your structural inhabitants and how they affect:

- Land Value: Chapter 13
- Pollution: Chapter 14
- Crime: Chapter 15
- Aura: Chapter 16

# LAND VALUE

If it can be said that there's an actual "object" to *SimCity 3000*, then it's to maximize your city's land value. It is, perhaps, the one feature that every player (except those *trying* to create a slum) pursues regardless of his or her city goals. Everyone needs operating money, and a high value tax base is, in *SimCity* at least, the best way to get it.



## NOTE

There is one significant way that *SimCity 3000* differs from the real world. In real life, the scarcity of real estate makes it more valuable. Transferring this logic to the game would mean that land values would rise when demand is high. You could, therefore, boost land value by refusing to add or expand zones when demand rises. Unfortunately, it doesn't work that way. Land value is unaffected by demand for zoned real estate.

| Budget                       |                                     | Expenditures           | Income               |                 |
|------------------------------|-------------------------------------|------------------------|----------------------|-----------------|
| 2002 Budget<br>February 2002 | Adjust                              | Yr. To Date<br>Expense | Year End<br>Estimate | Next<br>Advisor |
| Ordinances                   | <input checked="" type="checkbox"/> | \$1,070                | \$12,840             |                 |
| Neighbor Deals               | <input checked="" type="checkbox"/> | \$0                    | \$0                  |                 |
| Loans                        | <input checked="" type="checkbox"/> | \$0                    | \$0                  |                 |
| Education                    | <input checked="" type="checkbox"/> | \$1,000                | \$12,000             |                 |
| Public Health                | <input checked="" type="checkbox"/> | \$300                  | \$3,600              |                 |
| Fire                         | <input checked="" type="checkbox"/> | \$400                  | \$5,760              |                 |
| Roads                        | <input checked="" type="checkbox"/> | \$253                  | \$3,036              |                 |
| Police                       | <input checked="" type="checkbox"/> | \$720                  | \$8,640              |                 |
| Mass Transit                 | <input checked="" type="checkbox"/> | \$447                  | \$5,364              |                 |
| Year to Date Income          |                                     | \$8,240                | \$100,070            |                 |
| Estimated Income             |                                     |                        | \$100,070            |                 |
| Year to Date Expense         |                                     | \$4,270                | \$51,240             |                 |
| Estimated Expense            |                                     |                        | \$51,240             |                 |
| Year to Date Cash Flow       |                                     | \$3,970                | \$48,773             |                 |
| Estimated Cash Flow          |                                     |                        | \$48,773             |                 |
| Current Funds                |                                     |                        | \$342,364            |                 |
| End of Year Funds            |                                     |                        | \$391,137            |                 |

Fig. 13-1. Why should you care about land value? Get a load of this bottom line!



## NOTE

Why does land value matter? For two reasons, actually. First, one of the primary factors in tax revenue calculation is the average land value. You can, therefore, increase taxes not only by expanding population or raising rates, but also by raising land values. It's probably the most difficult method, but it's also the most enduring. Second, if you don't cultivate your land values, you'll never see some of the biggest, coolest buildings. This second matter is, however, one of pure personal preference.

You need to know how to maximize your land value effectively *and cheaply*. This chapter will give you all the tools you need to build a city of solid, but still variable, land value with enough high-end tiles to bring in the bucks, but enough land in the middle and below to give everyone a place to live.



## NOTE

For the serious number crunchers out there: land value updates every 60 days. Therefore, you'll have to wait up to two months to see the effects of your actions.

# UNDERSTANDING LAND VALUE COMPUTATIONS

Land value is derived from several steps to arrive at "Actual Land Value," the value you actually see when you open the Query window:

1. Every tile on your map has the same "Raw Land Value." This value is the same for every tile on the map.
2. Base Land Value = Raw Land Value × City Center Effect
3. Base Land Value + Pollution Effect + Crime Effect + Water Effect + Hill Effect + Building Effect + Ordinance Effects = Actual Land Value



Fig. 13-2. The land value you see in your Query window is "Actual Land Value." It's the sum of Base Land Value plus all modifying factors.

**NOTE**

Pollution Effect, Crime Effect, Water Effect, Hill Effect, Building Effect, and Ordinance Effect are all produced by multiplying Base Land Value by their respective factors. For example, if the Pollution Factor was -15 percent (a random number) and Base Land Value was \$100,000, Pollution Effect would be -\$15,000, which would be subtracted from Base Land Value to arrive at Actual Land Value.

This calculation demonstrates that, except for City Center Effect, all other Land Value Effects derive from Base Land Value and are independent of each other.

**CAUTION**

There is no way to know what the Raw Land Value is or to use the precise numbers for the City Center Effect. These figures are used by the simulation but are, themselves, meaningless when actually playing the game. Their *relationship*, however, is a very valuable piece of information that powerful mayors must understand clearly. That's what's being demonstrated here.

## CITY CENTER EFFECT

Modern cities tend to have a high-rent downtown with the biggest, shiniest buildings. This phenomenon is reflected in *SimCity 3000* by the City Center Effect.



Fig. 13-4. Or it can be a very swanky low-rise neighborhood. In fact, it can be anything as long as it's in the middle of your city.



Fig. 13-3. The City Center can be a glorious downtown.



## CITY CENTER DEFINED

The City Center is an imaginary location at the geographic center of your city (*not* of the *map*). It is at this point that, eliminating all other land value factors (pollution, crime, etc.), your city's Base Land Value is at its highest. From this point in all directions, Base Land Value decreases with distance from the City Center, eventually leveling off and staying constant to the outer reaches of your city.

Think of your city, roughly, as a pyramid. The tip of the pyramid is the City Center with its maximum Base Land Value. As you go down the slope of the pyramid, and away from the City Center, Base Land Value decreases. Where the pyramid meets the ground, Base Land Value stops dropping and stays the same until you get to the edge of the city.

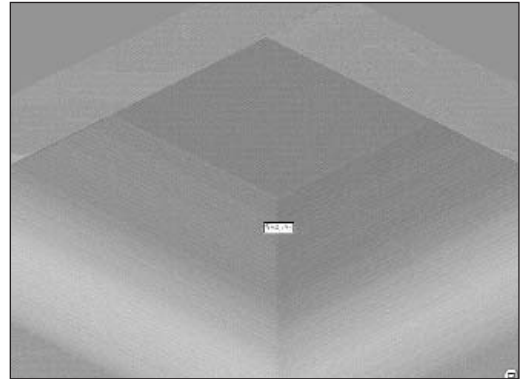


Fig. 13-5. This pyramid shows the effect of the City Center Effect. Highest possible Base Land Value occurs at the top of the pyramid, dropping as you slide down the side.

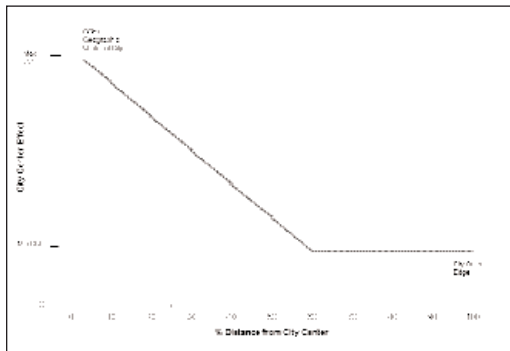


Fig. 13-6. This graph shows, in general, how the City Center Effect works. The effect starts at maximum and drops as distance from the City Center increases. When it hits minimum, it stays constant even as distance continues to increase.

In discussing City Center Effect, there are several variables to consider:

- **Maximum City Center Effect:** The maximum amount, given current population, that can be used to modify Raw Land Value. This figure occurs at the City Center and grows larger as population increases. It is also a different number for each kind of zone: Residential, Commercial, and Industrial.
- **Minimum City Center Effect:** The minimum amount, given current population, that can be used to modify Raw Land Value. The figure occurs at a fixed percentage (the “Minimum Value Distance Percentage”) of distance away from the City Center (depending on the type of zone being affected) and remains constant to the edge of the city.
- **Minimum Value Distance Percentage:** The percentage of distance from your City Center at which Minimum City Center Effect begins.



## CITY CENTER AND POPULATION

To keep the most lustrous and opulent buildings from appearing in your first year (that wouldn't be realistic would it?), the City Center Effect is geared to grow in intensity as population increases.

The Maximum City Center Effect changes depending on how many people live in your city. It begins low and might look something like this:

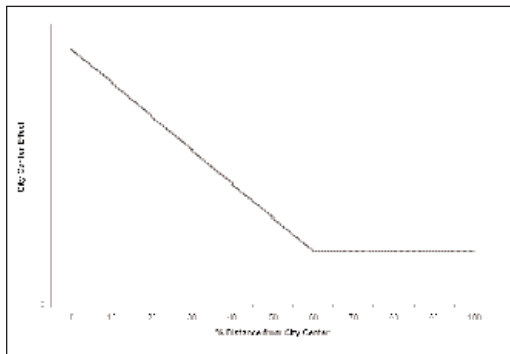


Fig. 13-8. A mature city has a much higher Maximum Effect and, in graphical representation, a much steeper slope.

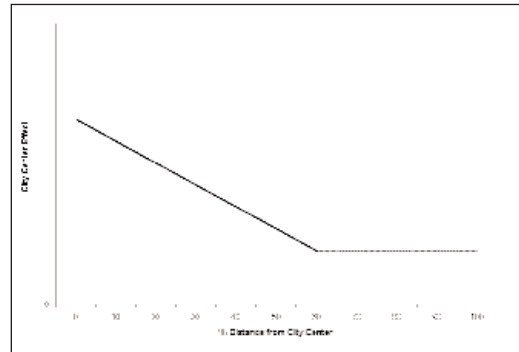


Fig. 13-7. This is an example of a young city with a weak City Center Effect. Note the slight slope of the line.

As population grows, the Maximum Effect increases while the Minimum Effect and Distance Percentage stay the same.

## CITY CENTER EFFECT AND ZONE TYPES

Actually, three distinct graphs dramatize the City Center Effect: one for each zone type. Each type of RCI zone is affected differently: Commercial the most, Industrial the least.



### NOTE

It doesn't matter what kind of zones are actually at your City Center; the effect is unchanged by what's on the ground at the Center. There can even be open space in your City Center. What matters are the zones being affected by it.

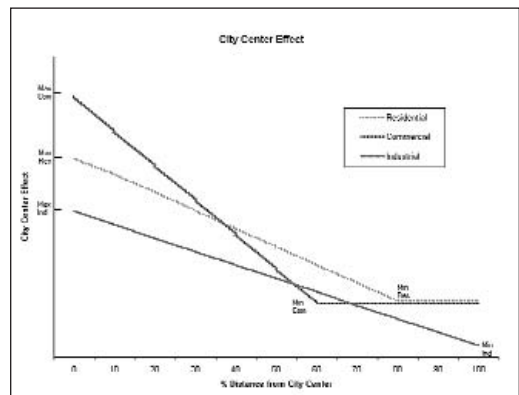


Fig. 13-9. City Center Effect for Residential, Commercial, and Industrial

Each zone type has a different Maximum Effect, Minimum Effect, and Distance Percentage. You'll notice that Commercial zones get the largest boost but hit Minimum Effect sooner. Industrial zones have the lowest effect but never really plateau. Residential zones start moderately but have a longer slope.

When thinking about City Center Effect, consider the type of zone.

## CITY CENTER EFFECT AND OTHER LAND VALUE FACTORS

Were Base Land Value not affected by any other factors (pollution, crime, etc.), the buildings at your City Center would always have the highest value while the buildings at the outer edge of your city would have the lowest.



Fig. 13-11. City Center is but one effect. Other effects can make up for tremendous distance from the City Center.



Fig. 13-10. Even this could be your City Center but it wouldn't make the effect any less.

That's not, however, how it works. Your City Center could, theoretically, have very low value. If you placed a Toxic Waste Disposal Plant surrounded by lots of dirty industry and a Coal Power Plant, it would indeed be enough to lower the land's Actual Land Value and counteract the City Center Effect in that location.

Likewise, your most distant suburb could be more valuable than your City Center. If, for example, the outer rim of your city contained a low density Residential neighborhood on high ground with lots of water and Parks and Schools, it could very well boast a dazzlingly high land value.

**NOTE**

It's important to keep this distinction in mind as you try to imagine the City Center Effect. It takes hold before you consider other factors such as pollution or crime. The effect is totally independent of what's actually happening on the ground in your city or even what your Query boxes are displaying as land value.

## FINDING YOUR CITY CENTER

Locating your City Center may seem difficult, but it's not. It's the geographic center of your city.

The easiest way to envision the City Center is to think of a city covering the entire map. The area in the dead center is the City Center.



Fig. 13-13. With a city like this, it's a bit more difficult, but the same principles apply. Think center.

**NOTE**

The City Center Effect is scaled to the size of the *city*, not the *map*.



Fig. 13-12. In a full map of the city it's easy to find the City Center.

Here's a bit more complicated example. The city represented in Figure 13-13 contains three "chunks" of city land. The center of the middle section would be the City Center.



## TIP

You can actually locate your City Center by Querying your Police Stations. Look for the statistic “Monthly Donut Consumption.”

This figure actually reflects your individual Police Station’s distance from the City Center; the lower the number, the closer it is to the City Center. Unfortunately, this may not be totally reliable. The number also reflects the crime level in a Station’s precinct (bored cops eat more donuts). It may be difficult to distinguish which figure holds more sway in donut consumption if the Stations have different crime levels. Still, it’s fun to try.

Remember that your City Center will move when the configuration of your city changes. Keep track of what effect your changes are having so that you may continue to exploit this most profound influence.

# POLLUTION FACTOR

Pollution impacts land value because no one wants to live in a smog bank. Still, some pollution in urban life is inevitable; no one expects to live in a pollution-free world. It’s for this reason that pollution affects land value to the extent that it is above or below what is considered acceptable.

## ACCEPTABLE POLLUTION LEVELS

What is acceptable depends on the kind of pollution.



## CROSS REFERENCE

For all the details on pollution, see Chapter 14.



Fig. 13-14. This represents the effect of this City Center on the three zone types. Each circle represents the Minimum Distance Percentage for each zone. Everything inside the circles has a gradually declining City Center Effect while everything outside has a constant City Center Effect.

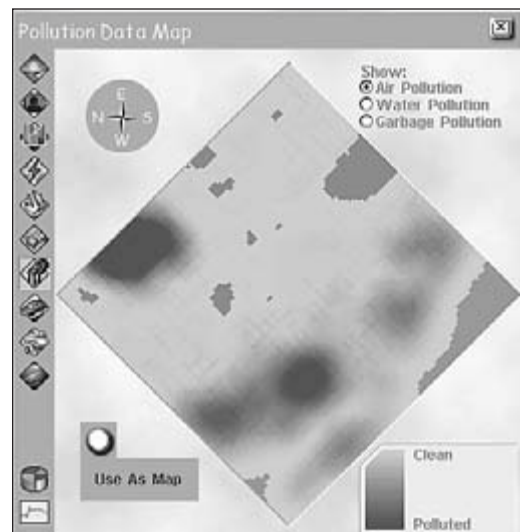


Fig. 13-15. Where pollution is low, land value is actually boosted.



Air pollution is the most prevalent form of environmental filth. As such, your Sims' tolerance for it is relatively high. Don't abuse the indulgence, though, they're not *that* forgiving, and there are still the health considerations to combat.



## CROSS REFERENCE

Proper disposal of garbage is covered in Chapter 17.

As for garbage pollution, no amount is acceptable. Your Sims don't think it's too much to ask to have a decent garbage disposal system. Their tolerance for failures on this score is nonexistent. As such, garbage pollution either exists or it doesn't—you'll know it's a problem if you see it piling up on filler tiles.

Radiation is also an all or nothing issue. Either a tile is affected by radiation (Nuclear Power Plant explosion) or it isn't. Frankly, if a tile is contaminated with radiation, its land value is no longer a concern—contaminated tiles are uninhabitable for several thousand years.

## BELOW AVERAGE EFFECT

If a given building or tile's pollution rating is below the acceptable amount, it receives an increased boost in land value.

## ABOVE AVERAGE EFFECTS

When pollution grows out of control, all structures under its cloud see their land value plummet. If pollution is bad enough to rise above average, land values take the punishment, dropping more as pollution increases.

## CRIME FACTOR

Your Sims need to feel safe at home, in the streets, and at work. Though you'd like to be an idealist and think that no amount of crime is tolerable, your Sims know that a little lawlessness is part-and-parcel of city life.

As such, crime impacts land value to the extent that it is below or above average on any given tile.



Fig. 13-16. High crime is a land value killer. Use police coverage to bring down local levels, reducing the effect on land value.



## ACCEPTABLE CRIME LEVELS

Above a certain level of crime, Sims start to worry about their land values. Keep crime low with good (but not suffocating) police coverage to avoid any detrimental effect.



### CROSS REFERENCE

For more on police coverage and oppression levels, see Chapters 15 and 19.

## BELOW-AVERAGE EFFECT

Crime below average has a positive effect on land value.

## ABOVE-AVERAGE EFFECT

Above-average crime has a devastating effect on land value. If you let your lawbreaking Sims run rampant, your tax base will deteriorate.

Police coverage and skillful spacing of structures with high crime effects are your best ways to bring down crime. Don't forget your Jails; they contribute profoundly to your city's crime fighting abilities.



Fig. 13-17. Police Stations can't reach full efficiency without a Jail nearby.

## LANDSCAPE EFFECTS

The location of a tile can affect its land value. Placing zones either near water or on hills is essential to maximize land value or counteract NIMBYs.



### CROSS REFERENCE

Landscaping is covered in Chapter 7.





## WATER EFFECT

Building near bodies of water is a sure way to boost land value. All water imparts this effect to tiles surrounding it: oceans, rivers, lakes, and water made with Terrain Tools.



### TESTER TIP!

The simplest way to hike land values (assuming Industrial zones and buildings such as Power Plants are already far from Commercial and Residential zones) is to make sure every square of Residential and Commercial zones are within 4 squares of at least 1 water square and at least 1 Large Park. This means putting down lots of water.

Some people put down ground water, which can be good because it won't destroy Water Pipes or Subway Rails that happen to be under the site of your new lake. Personally, I prefer to just lower the terrain until I hit the water table. I then take the Level Terrain Tool and flatten out two of the edges of the watered area, leaving only 4 squares of water. This takes up less space than the 9 tiles consumed by simply plopping down one tile of water with the Terrain Tool.

—Dan Roisman, *Electronic Arts*

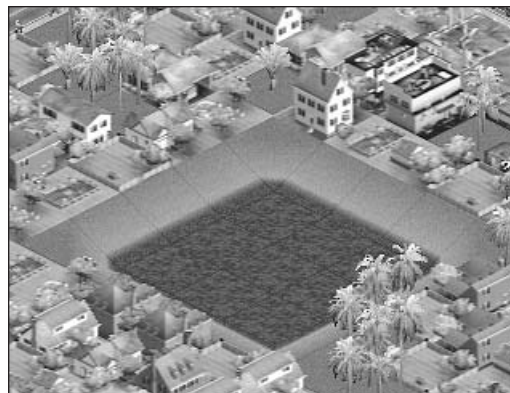


Fig. 13-18. Any water bestows the Water Effect.



Fig. 13-19. Water can be reduced to this size and still raise land values.

Bodies of water increase land value in a 6 tile radius. For tiles closest to the water, the effect is most dramatic: an increase of 50 percent of Base Land Value. The land value boost diminishes as distance increases, with the farthest tiles receiving the least effect. There is no water effect beyond 6 tiles.

## HILL EFFECT

Land value can be further enhanced if a structure is located on a hill. Actually, that's not exactly right; to receive the hill effect, the tile on which the structure sits must be higher than the average elevation of your map.

It is impossible to know precisely what average elevation is but you can make an educated guess based on a survey of tiles.



### TIP

The shade of the tile can indicate its elevation, or at least differences in elevation. If you can determine the dominant ground color on the map, you can presume that it represents the average elevation.

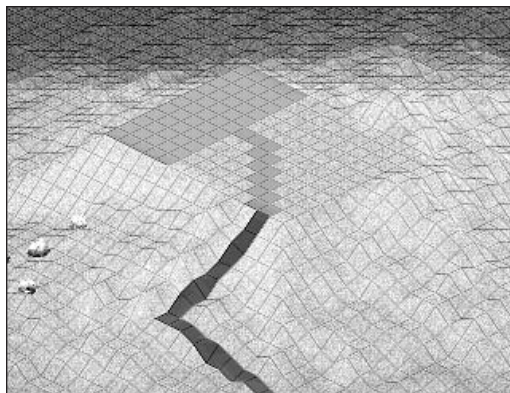


Fig. 13-20. Building on high ground produces small increases in land value. Make sure, however, you can inexpensively get a Road up the hill before zoning on it.

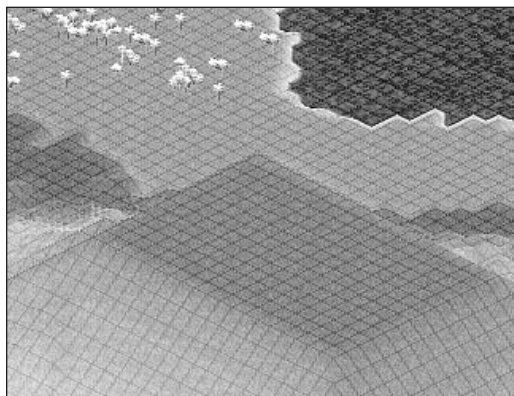


Fig. 13-21. The darker the tile, the higher above sea level it is.

The Hill Effect can augment a tile's value by as much as 30 percent of Base Land Value. Near the average altitude, the effect is minor, growing as elevation increases. The higher above the rest of the world you are, the greater the effect (up to the 30 percent cap).

Here's how it works (a formula explains it best):

**Percent Increase in Base Land Value =  $(30 \times \text{the Altitude of the Zone}) / (\text{Average Altitude} \times 8)$**

If, therefore, a structure is at 52 meters and the average elevation is guesstimated at 26 meters, the increase will be 7.5 percent of Base Land Value.

In many cases, the Hill Effect is more trouble than it's worth. You need to be pretty high to get anywhere near the Maximum Effect and the headaches and expenses involved in running Roads, wires, pipes, Subway Tunnels, etc. up a steep hill may not be worth the effort. Stick to flat, easily accessed plateaus and take whatever minor boosts you can from small differences in elevation. It adds up, but don't expect miracles.



# BUILDING EFFECTS

Most buildings influence the land value of other buildings. This is formally known as a Building Effect and it can be either positive or negative.

Informally, nasty structures that decrease their neighbors' land value are called "NIMBY" or "Not In My Back Yard" buildings. These include such "there-goes-the-neighborhood" monstrosities as Power Plants, Landfills, Jails, etc.



Fig. 13-22. Power Plants, Jails, and other undesirables are called "NIMBYs." You don't really need a list to know what the worst NIMBYs are; it's pretty obvious.



Fig. 13-23. Parks, Schools, and other good structures enhance land value.



## NOTE

For Industrial buildings, the words NIMBY and YIMBY are actually misleading. In fact, there is no land value low enough to keep industry, even clean industry, from developing.

Likewise, for dirty industry, land value *can* be too high to allow development. Therefore, placing buildings with positive Land Value Effects nearby can actually hurt development. Clean industry, however, can develop in any land value.

When you place a building, its Land Value Effect is added to the tiles on which it sits (adjusting its own land value, but not yet affecting its neighbors). The simulation then averages all building effects over the whole map, "smoothing" strong effects over nearby tiles. This is how a NIMBY or YIMBY spreads its impact to zones closest to it.



## NOTE

These numbers don't have any real meaning within the simulation, but they should give you an idea of the relative Land Value Effects of each building.

**Table 13-1. Land Value Effects of Buildings and Zones**

| <i>Structure/Zone</i>                | <i>Residential Effect (percent)</i> | <i>Commercial Effect (percent)</i> | <i>Industrial Effect (percent)</i> |
|--------------------------------------|-------------------------------------|------------------------------------|------------------------------------|
| Airport                              | -7                                  | 4                                  | 2                                  |
| Bus Stop                             | -10                                 | 12                                 | 5                                  |
| Casino Row                           | -40                                 | 15                                 | 5                                  |
| City College                         | 10                                  | 10                                 | —                                  |
| City Hall                            | 20                                  | 25                                 | —                                  |
| Country Club                         | 35                                  | 7                                  | 5                                  |
| County Courthouse                    | 20                                  | 25                                 | —                                  |
| Defense Contractor                   | -20                                 | 18                                 | 12                                 |
| Desalinization Plant                 | -12                                 | -5                                 | -10                                |
| Fire Station                         | 5                                   | 12                                 | 12                                 |
| Geyser Park                          | 5                                   | 15                                 | 5                                  |
| GigaMall                             | -10                                 | 5                                  | —                                  |
| High Density Dirty Industrial Zone   | -60                                 | -30                                | -5                                 |
| Highway                              | -8                                  | 4                                  | 4                                  |
| Historic Statue                      | 18                                  | 18                                 | 5                                  |
| Hospital                             | 5                                   | 5                                  | 5                                  |
| Incinerator                          | -50                                 | -10                                | -3                                 |
| Jail                                 | -30                                 | -30                                | -30                                |
| Landfill                             | -80                                 | -60                                | -20                                |
| Low Density Dirty Industrial Zone    | -20                                 | -10                                | -1                                 |
| Library                              | 15                                  | 15                                 | —                                  |
| Lighthouse                           | 12                                  | 25                                 | —                                  |
| Marina                               | 25                                  | 25                                 | —                                  |
| Maximum Security Prison              | -40                                 | -20                                | -10                                |
| Mayor's House                        | 23                                  | 20                                 | 2                                  |
| Medium Density Dirty Industrial Zone | -40                                 | -20                                | -2                                 |
| Medical Research Center              | 10                                  | 10                                 | —                                  |
| Military Base                        | -20                                 | 12                                 | 12                                 |

*Continued on next page*



Continued from previous page

| <b>Structure/Zone</b>        | <b>Residential Effect (percent)</b> | <b>Commercial Effect (percent)</b> | <b>Industrial Effect (percent)</b> |
|------------------------------|-------------------------------------|------------------------------------|------------------------------------|
| Museum                       | 15                                  | 15                                 | —                                  |
| Parks (all types)            | 50                                  | 30                                 | 10                                 |
| Performing Arts Center       | 12                                  | 20                                 | —                                  |
| Police Station               | 10                                  | 15                                 | 10                                 |
| Power Line                   | -15                                 | -15                                | —                                  |
| Power Plant, Coal            | -90                                 | -70                                | -15                                |
| Power Plant, Fusion          | -50                                 | -18                                | -7                                 |
| Power Plant, Gas             | -60                                 | -40                                | -9                                 |
| Power Plant, Microwave       | -50                                 | -18                                | -7                                 |
| Power Plant, Nuclear         | -110                                | -80                                | -30                                |
| Power Plant, Oil             | -70                                 | -55                                | -15                                |
| Power Plant, Solar           | -35                                 | -14                                | -4                                 |
| Power Plant, Wind            | -15                                 | -14                                | -4                                 |
| Pumping Station              | -20                                 | -12                                | -5                                 |
| Rail                         | -4                                  | —                                  | —                                  |
| Recycling Center             | -20                                 | -10                                | -3                                 |
| Road                         | 1                                   | 3                                  | 2                                  |
| School                       | 10                                  | 10                                 | —                                  |
| Science Center               | 10                                  | 10                                 | —                                  |
| Seaport                      | -7                                  | 2                                  | 4                                  |
| SimCity Castle (Easter Egg)  | 100                                 | 100                                | 100                                |
| Spaceport                    | -40                                 | -25                                | 10                                 |
| Stadium                      | -20                                 | 14                                 | —                                  |
| Stock Exchange               | -5                                  | 35                                 | -4                                 |
| Subway Station               | -15                                 | 10                                 | 10                                 |
| Theme Park                   | -18                                 | 12                                 | —                                  |
| Toxic Waste Conversion Plant | -90                                 | -50                                | -20                                |
| Train Station                | -15                                 | 10                                 | 10                                 |
| Trees                        | 5                                   | 5                                  | 2                                  |
| University                   | 5                                   | 15                                 | —                                  |
| Waste-to-Energy Incinerator  | -35                                 | -15                                | -8                                 |
| Water Tower                  | -5                                  | -2                                 | —                                  |
| Water Treatment Plant        | -20                                 | -12                                | -5                                 |
| Zoo                          | 20                                  | 25                                 | —                                  |



**NOTE**

NIMBY effects are distinct from Pollution Effects. Although a NIMBY building is probably undesirable because it pollutes, its Land Value Effect and Pollution Effect are distinct factors.

Note, particularly, differences in effect between different zone types. A Police Station, for instance, has a higher beneficial effect on Commercial zones than Residential zones. You'd waste some of the Police Station's positive effect by placing it in a Residential backyard.



**TIP**

Because dirty industry adores low land value, you'll want to use NIMBY effects to drive values down.

As such, the Top 10 YIMBYs for dirty Industrial are actually, the 10 biggest *land value reducers*. Likewise, the Top 10 NIMBYs are actually the 10 biggest *land value enhancers*.



Fig. 13-24. Police Stations should go in Commercial zones if at all possible. Often, however, coverage will dictate placing them elsewhere.

**Table 13-2. Top 10 YIMBYs By Zone**

| <i>Residential</i>   | <i>Commercial</i>      | <i>Clean Industrial</i> | <i>Dirty Industrial</i>     |
|----------------------|------------------------|-------------------------|-----------------------------|
| 1. Parks (all types) | Stock Exchange         | Defense Contractor      | Power Plant, Nuclear        |
| 2. Country Club      | Parks (all types)      | Fire Station            | Landfill                    |
| 3. Marina            | City Hall              | Military Base           | Toxic Waste Plant           |
| 4. Mayor's House     | County Courthouse      | Parks (all types)       | Power Plant, Coal           |
| 5. City Hall         | Lighthouse             | Police Station          | Power Plant, Oil            |
| 6. County Courthouse | Marina                 | Spaceport               | Desalinization Plant        |
| 7. Zoo               | Zoo                    | Subway Station          | Maximum Security Prison     |
| 8. Historic Statue   | Mayor's House          | Train Station           | Power Plant, Gas            |
| 9. Library           | Performing Arts Center | Bus Stop                | Waste-to-Energy Incinerator |
| 10. Museum           | Defense Contractor     | Casino Row              | Power Plant, Fusion         |



**Table 13-3. Top 10 NIMBYs by Zone**

| <i>Residential</i>                    | <i>Commercial</i>                  | <i>Clean Industrial</i>      | <i>Dirty Industrial</i> |
|---------------------------------------|------------------------------------|------------------------------|-------------------------|
| 1. Power Plant, Nuclear               | Power Plant, Nuclear               | Power Plant, Nuclear         | Defense Contractor      |
| 2. Power Plant, Coal                  | Power Plant, Coal                  | Landfill                     | Fire Station            |
| 3. Toxic Waste Conversion Plant       | Landfill                           | Toxic Waste Conversion Plant | Military Base           |
| 4. Landfill                           | Power Plant, Oil                   | Power Plant, Coal            | Parks (all types)       |
| 5. Power Plant, Oil                   | Toxic Waste Plant                  | Power Plant, Oil             | Police Station          |
| 6. High Density Dirty Industrial Zone | Power Plant, Gas                   | Desalinization Plant         | Spaceport               |
| 7. Power Plant, Gas                   | High Density Dirty Industrial Zone | Maximum Security Prison      | Subway Station          |
| 8. Incinerator                        | Jail                               | Power Plant, Gas             | Train Station           |
| 9. Power Plant, Fusion                | Spaceport                          | Waste-to-Energy Incinerator  | Bus Stop                |
| 10. Power Plant, Microwave            | Maximum Security Prison            | Power Plant, Fusion          | Casino Row              |

13

LAND VALUE

## ORDINANCES

One Ordinance directly impacts the value of land. Like other Land Value Effects, the modification outlined below is applied to Base Land Value.

### HOMELESS SHELTER

- Department: City Planner
- Year Available: 1900
- Prerequisites: Unemployment more than 10 percent
- Monthly Cost: \$0.001 plus 3 times the number of abandoned buildings
- Pro: Boosts global Base Land Value
- Con: Costs money

More than just a do-gooder measure, this Ordinance benefits everyone. Your homeless Sims get a place to live and everyone gets a 5 percent boost in Base Land Value.





# POLLUTION

Try as you might, you just can't avoid pollution. It pours out of your buildings into the air and water, fogging the sky and fouling the wells. Plus, every resident produces garbage that, if not disposed of, really starts to stink up the place.

High pollution has several effects:

- Reduces local land value
- Increases Hospitalization Rate (thereby increasing the demand on Hospitals)
- Reduces the efficiency of your water supply system (water pollution)
- Reduces tourist volume
- Reduces aura
- Prevents Farm development and causes Farm abandonment
- Increases probability of Toxic Cloud Disaster (*SimCity 3000 Unlimited* only)
- Reduces Sports Park usage and Zoo visitors

This chapter will teach you how to deal with the necessary evil of pollution: how to minimize it when it's inevitable, how to reduce it for the sake of health, and how to eventually build a city with a tolerable level of pollution.

Your Sims are counting on you. More to the point, the bean counters in the treasury are counting on you to provide them a long-living workforce and a healthy tax base.

## POLLUTION IN GENERAL

Pollution is emitted by structures and traffic in your city. However, it doesn't stay put; pollution has profound influence on surrounding structures and grows more intense as more buildings contribute to the contamination.



Fig. 14-1. Your humming Industrial zones and beneficial Power Plants are quietly choking your city.

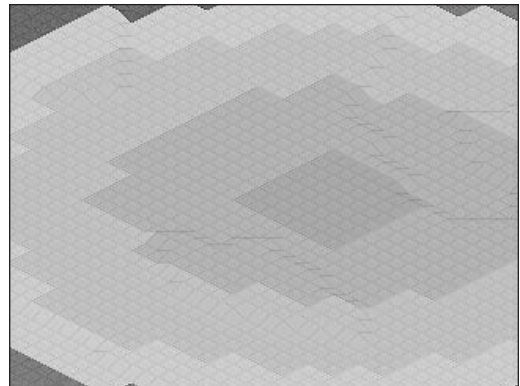


Fig. 14-2. Pollution tends to radiate to adjacent structures.

**NOTE**

For the serious number crunchers out there: pollution updates every 30 days. Therefore, you have to wait up to one month to see the effects of your actions.

While it's important to accept the inevitability of pollution, you aren't helpless against it. You have several options.

The challenge, however, is that all of these options require trade-offs. The easiest thing to do about pollution is nothing—and that's certainly an option. To coax the best out of your city, however, you must decide which measures are worth the costs and which are excessive. The choices are not always easy and are usually about more than money. Choose wisely.

## POLLUTION PRODUCTION

Almost every building (including Parks and other recreation “structures”) either produces or absorbs a fixed monthly amount of air and water pollution and dumps a certain amount of garbage. Cars produce air pollution based on traffic density.

Consult Tables 14-1 and 14-2 for the local Pollution Effects of all Roads and relevant structures. Entities with no Pollution Effect are not included. Note that the numbers on this list are expressions of relative Pollution Effect and not actual numbers contributing to the pollution statistics you'll see in the simulation.

**Table 14-1. Air Pollution Effect by Developed Zone (per tile)**

| <i>Zone</i>   | <i>Air Pollution</i> | <i>AP Radius</i> | <i>Water Pollution</i> | <i>WP Radius</i> | <i>Garbage Generated</i> |
|---------------|----------------------|------------------|------------------------|------------------|--------------------------|
| LD Res.       | 7                    | 7                | 10                     | 5                | 4                        |
| MD Res.       | 24                   | 10               | 40                     | 5                | 28                       |
| HD Res.       | 59                   | 10               | 100                    | 5                | 60                       |
| LD Com.       | 10                   | 8                | 8                      | 5                | 8                        |
| MD Com.       | 40                   | 10               | 35                     | 5                | 28                       |
| HD Com.       | 70                   | 13               | 70                     | 5                | 60                       |
| LD Dirty Ind. | 50                   | 14               | 50                     | 6                | 8                        |
| MD Dirty Ind. | 100                  | 19               | 100                    | 6                | 28                       |
| HD Dirty Ind. | 125                  | 25               | 125                    | 6                | 60                       |
| LD Clean Ind. | 8                    | 7                | 8                      | 6                | 4                        |
| MD Clean Ind. | 50                   | 10               | 36                     | 4                | 28                       |
| HD Clean Ind. | 100                  | 10               | 70                     | 4                | 60                       |
| Agricultural  | 0                    | 0                | 5                      | 5                | 8                        |
| Airport       | 100                  | 25               | 50                     | 10               | 48                       |
| Seaport       | 50                   | 15               | 100                    | 10               | 32                       |

**Table 14-2. Air Pollution Effect by Structure**

| <b>Zone</b>             | <b>Air Pollution</b> | <b>AP Radius</b> | <b>Water Pollution</b> | <b>WP Radius</b> | <b>Garbage Generated</b> |
|-------------------------|----------------------|------------------|------------------------|------------------|--------------------------|
| Bus Station             | 90                   | 10               | 80                     | 5                | 40                       |
| Casino Row              | 1,500                | 10               | 1,500                  | 8                | 3,600                    |
| City College            | 450                  | 10               | 450                    | 5                | 504                      |
| City Hall               | 450                  | 10               | 450                    | 5                | 144                      |
| Country Club            | -2,500               | 15               | 2,500                  | 15               | 1,000                    |
| Defense Contractor      | 2,500                | 10               | 2,000                  | 5                | 1,500                    |
| Desalinization Plant    | 450                  | 10               | 0                      | 0                | 270                      |
| Fire Station            | 450                  | 10               | 450                    | 5                | 270                      |
| Fountain                | -5                   | 5                | -5                     | 5                | 4                        |
| Geyser Park             | -2,500               | 15               | -2,500                 | 15               | 1,000                    |
| GigaMall                | 1,500                | 10               | 2,000                  | 15               | 3,600                    |
| Hospital                | 540                  | 10               | 720                    | 5                | 216                      |
| Incinerator             | 36,000               | 22               | 19,800                 | 12               | 0                        |
| Jail                    | 540                  | 10               | 720                    | 5                | 576                      |
| Landfill (per tile)     | 75                   | 10               | 100                    | 15               | 0                        |
| Large Park              | -180                 | 10               | -180                   | 10               | 90                       |
| Library                 | 200                  | 10               | 200                    | 5                | 120                      |
| Lighthouse              | 240                  | 10               | 240                    | 5                | 160                      |
| Marina                  | 540                  | 10               | 900                    | 10               | 360                      |
| Maximum Security Prison | 1,750                | 10               | 1,750                  | 10               | 3,600                    |
| Medical Research Center | 540                  | 10               | 720                    | 5                | 288                      |
| Military Base           | 50,000               | 20               | 50,000                 | 10               | 4,000                    |
| Museum                  | 200                  | 10               | 200                    | 5                | 120                      |
| Performing Arts Center  | 200                  | 10               | 200                    | 5                | 160                      |
| Playground              | -20                  | 8                | -20                    | 8                | 40                       |
| Police Station          | 450                  | 10               | 450                    | 5                | 270                      |
| Pond                    | -20                  | 8                | -20                    | 8                | 40                       |

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| <b>Zone</b>                  | <b>Air Pollution</b> | <b>AP Radius</b> | <b>Water Pollution</b> | <b>WP Radius</b> | <b>Garbage Generated</b> |
|------------------------------|----------------------|------------------|------------------------|------------------|--------------------------|
| Power Plant, Coal            | 80,000               | 25               | 48,000                 | 12               | 800                      |
| Power Plant, Fusion          | 400                  | 5                | 400                    | 5                | 800                      |
| Power Plant, Gas             | 32,000               | 20               | 20,000                 | 7                | 800                      |
| Power Plant, Microwave       | 800                  | 10               | 1,600                  | 10               | 800                      |
| Power Plant, Nuclear         | 400                  | 5                | 800                    | 6                | 800                      |
| Power Plant, Oil             | 56,000               | 22               | 28,000                 | 10               | 800                      |
| Pumping Station              | 8                    | 7                | 0                      | 0                | 0                        |
| Recycling Center             | 900                  | 20               | 450                    | 10               | 72                       |
| School                       | 450                  | 10               | 450                    | 5                | 360                      |
| Science Center               | 1,500                | 10               | 2,000                  | 5                | 800                      |
| SimCity Castle (Easter Egg)  | -96,000              | 30               | -80,000                | 25               | 0                        |
| Small Park                   | -5                   | 8                | -5                     | 8                | 8                        |
| Spaceport                    | 31,250               | 20               | 25,000                 | 8                | 3,000                    |
| Sports Park                  | -160                 | 8                | -160                   | 8                | 320                      |
| Stadium                      | 1,500                | 15               | 2,000                  | 15               | 3,600                    |
| Stock Exchange               | 800                  | 10               | 800                    | 5                | 640                      |
| Subway Station               | 60                   | 10               | 60                     | 5                | 60                       |
| Subway-to-Rail Station       | 60                   | 10               | 60                     | 5                | 60                       |
| Theme Park                   | 6,000                | 10               | 8,000                  | 10               | 14,400                   |
| Toxic Waste Conversion Plant | 175,000              | 20               | 125,000                | 18               | 1,500                    |
| Train Station                | 400                  | 10               | 360                    | 5                | 240                      |
| Tree                         | -4                   | 5                | -5                     | 5                | 0                        |
| University                   | 6,000                | 10               | 6,000                  | 5                | 8,800                    |
| Waste-to-Energy Incinerator  | 22,500               | 18               | 13,500                 | 10               | 0                        |
| Water Treatment Plant        | 200                  | 10               | 0                      | 0                | 120                      |
| Zoo                          | 960                  | 10               | 960                    | 10               | 640                      |

# LEVELS OF POLLUTION: LOCAL VS. GLOBAL

The next step in making informed choices and forming strategies is understanding a basic distinction: there are two levels of pollution—local and global.

The figures in Table 14-1 determine *local pollution levels* and cannot be changed. They can, of course, be mitigated and that's where your skill as Mayor enters the picture.

On the other hand, these stats do not figure directly into *global pollution levels* except that local levels are averaged to determine the global level.

Keeping both levels distinct will help you be more effective in your war on filth. Global pollution is an indication of how you are doing in general—it doesn't really represent conditions on the ground. Local pollution, alternatively, reflects the changes you make and the actual state of affairs for the Sims in a given neighborhood.

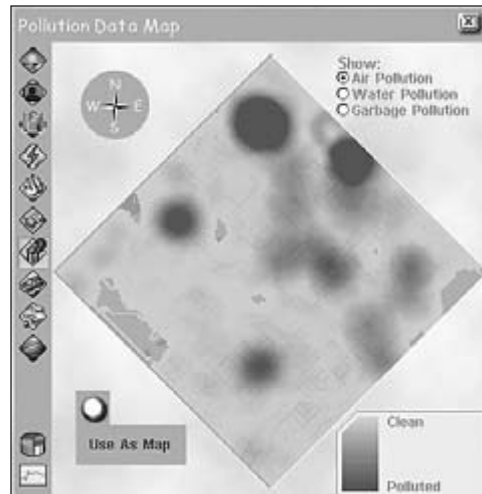


Fig. 14-3. You've obviously got some problems, but how bad is it overall? Global pollution shows you how your entire city is faring, pollution-wise.

## LOCAL POLLUTION

Local pollution refers to the amount of pollution produced in and around any given location on your city map. It can be influenced by careful zoning and building placement, traffic reduction, and by Ordinances.

## LOCAL POLLUTION DATA

Keeping track of local pollution is a full-time job and one of your most important duties. Any structure or tile can be Queried to discover its local pollution level.

- Air and water pollution are rated None to Hazardous, this general description gives you an idea of how bad things are on the ground in a precise location.

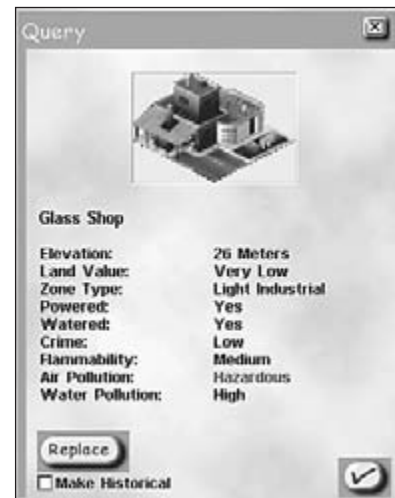


Fig. 14-4. A Query tells you several things, including the net local pollution on any tile or zoned building.



- If a filler tile is covered in garbage, it appears visually as a pile of trash. The Query box also indicates its sullied state.
- Local pollution can also be viewed more generally in the Pollution Data Map or with the Pollution Layer. These views graphically show the concentration of pollution on your entire city map, with darker areas being centers of intense pollution. The Data Map can separately display pollution by type: air, water, and garbage. The Data Map can separately display pollution by type: air, water, and garbage.
- You can visually identify water pollution problems in bodies of water. If the water is dark and cloudy, you have a pollution problem.
- Areas of heavy traffic can be pollution problems. Check those sections clogged with cars and find ways to lower the volume.



Fig. 14-5. Water pollution appears near big polluters as dark, cloudy water.

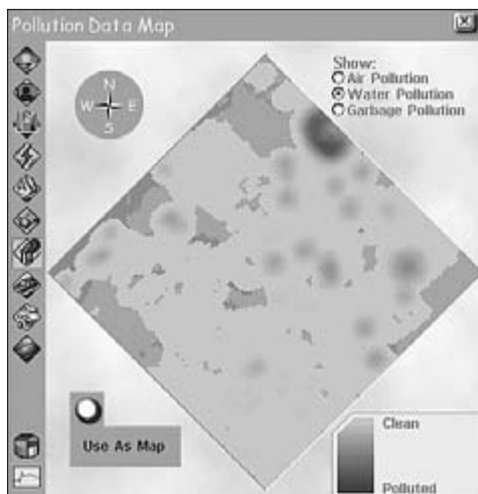


Fig. 14-6. Use the Data Map to spot areas of high concentration.



Fig. 14-7. Garbage becomes a Pollution Factor only when it starts to pile up in inappropriate places.

## LOCAL POLLUTION EFFECTS

Local pollution's primary menace is that it slaughters land value. If pollution in an RCI zone is above average, it has a downward effect on all affected structures. This, in turn, pulls down your citywide average land value. Low land value reduces your tax revenue.



### CROSS REFERENCE

Pollution's effect on land value is discussed in Chapter 13.

To avoid this fate, be mindful of Pollution Effects when placing zones and buildings.

Every structure produces some level of air and water pollution in a predictable radius. This effect decreases as distance from the source increases. A building close to a polluter bears the full brunt of its pollution while one farther away may see only minor effects.

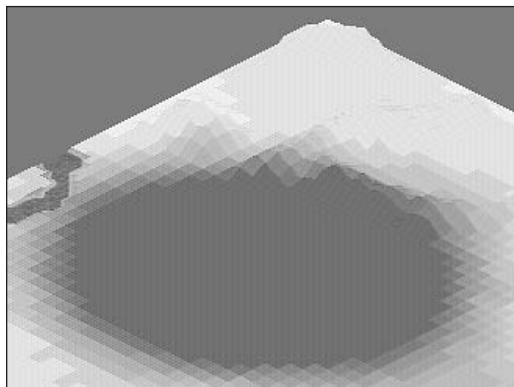


Fig. 14-9. No matter how many polluters you cluster and how high pollution gets at the cluster, the radius of effect does not get larger. As you see, however, the area of concentration, usually focused at the center, extends almost to the edge of the radius.

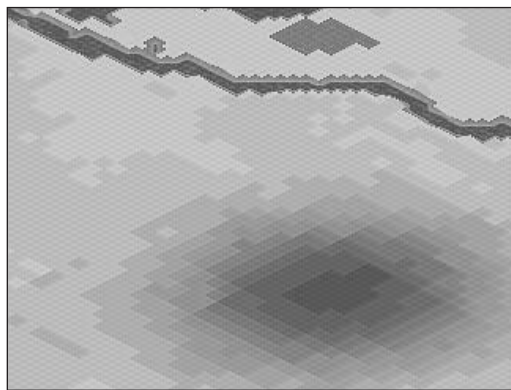


Fig. 14-8. It's easy to observe pollution in action: it's strongest near the source and tapers off with distance. Plus, if you cluster polluters, their effects overlap and build on each other.

Pollution radii are absolute. No matter how much pollution is being produced in a local area, the radius is limited to the farthest radius of any of the included buildings. In the event of extremely high and concentrated pollution, the area of highest intensity, usually contained within a few squares of the producer, will spread out toward the edge of the radius. At some point, a radius won't be able to distribute any more pollution (most tiles will be at Hazardous levels over the entire radius) and will simply max out.





## COMBATING LOCAL POLLUTION

To keep your local pollution down:

- Keep Industrial zones away from Residential and Commercial zones. While this tactic doesn't technically reduce local pollution, it keeps pollution away from good areas. In reality, doing this only preserves land value, but, in effect, it also reduces local pollution in your Residential and Commercial zones.
- Avoid putting any polluting municipal or gift buildings in Residential and Commercial zones.
- Place your Power Plants, Landfills, trash structures, dirty Industrial neighborhoods, Business Deal buildings, and other big polluters on the edge of your map. Half of their radius effect—and, therefore, half of their contribution to local pollution—will be “off the map.” For even more effect, put a Power Plant in a corner.
- Keep all garbage disposal facilities far out of town or at least near your other big polluters.
- Add and preserve lots of trees via Terrain Tools.
- Build as many Parks in as many places as possible. They possess negative Pollution Effects that bring down local pollution.
- Provide an extensive public transportation system. Subways, Railroads, and Buses are electrically powered, so they don't contribute to local pollution. Their stations give off a small amount of pollution, but not as much as a well-traveled Road.
- Work toward attracting clean industry to your city and discourage the polluting dirty industry.

14

POLLUTION



### CROSS REFERENCE

For full guidance on trading dirty industry for clean, see Chapter 30.

## GLOBAL POLLUTION

Global pollution is the average local pollution level of your city, taking into account actual ground-level pollution and any pollution-modifying Ordinances.

## GLOBAL POLLUTION DATA

A survey of your individual zones can give only the most fragmented view of global pollution. To get a more precise view, however, look to:

- Pollution Chart Line



### TESTER TIP!

**Why pollute?** Instead of building messy power structures that add to your city's pollution and need to be replaced regularly, just import power from a neighbor. While this seems unnecessarily costly at first, once your city has grown relatively large, the lack of pollution and need to replace power buildings greatly offsets the costs. You also won't have to worry about radiation pollution from exploded Nuclear Power Plants (from running over capacity or disaster damage).

—Syruss Flyte, *Electronic Arts*

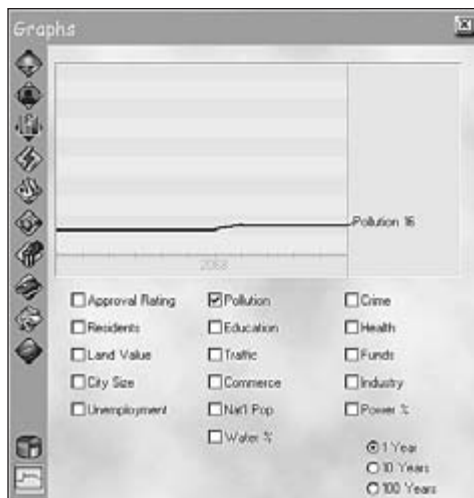


Fig. 14-10. The pollution line on your charts marks global pollution levels.

## EFFECTS OF GLOBAL POLLUTION

The main reason to monitor global pollution is its effect on your Sims' health.



### CROSS REFERENCE

Life expectancy and health are covered in Chapter 20.

Pollution is one of the primary factors dictating your Sims' life expectancy. If your Sims are unhealthy, they cannot lead full, productive lives in your workforce. If they check out of the workforce early, your city's growth and EQ will suffer. And there's no hospital in the world that treats that kind of pain.



## COMBATING GLOBAL POLLUTION

Do everything in your power to keep global pollution down.

The actual location of any given structure is irrelevant to global pollution—it adds the same amount to the average whether it's next to your Power Plant or a wealthy Residential neighborhood. We're not, therefore, concerned with proximity effects when discussing global pollution.



### TIP

There is one instance in which building placement affects global pollution. When you locate a polluter on the edge of the map, it actually contributes less to global pollution because nearly half its local Pollution Effect is spread off the map.

What can you do, then?

- Bring down local pollution. As far as global pollution is concerned, simply rearranging your zones to segregate polluters has no effect. You'll need to actually reduce local pollution with pollution-removing structures such as Parks.
- Buy your power from a neighbor rather than building Power Plants on your own soil. This is the best way to reduce global pollution, especially early in games starting in 1900.
- Use clean sources of power such as Windmills or Solar Collectors. Note that these are more expensive on a per megawatt basis.
- Pass Ordinances that lower local pollution on *every tile* of your city. This pulls down global pollution.
- Keep your garbage-handling capacity ahead of output. If garbage starts to pile up in your Sims' neighborhoods, it adds totally avoidable pollution to your overall levels.
- Install sufficient Water Treatment Plants to reduce your global water pollution.

## KINDS OF POLLUTION

To be a "green" Mayor, you'll have to keep your eye on four different kinds of pollution that plague your city. All four contribute to pollution, but in different ways.

## AIR

Air pollution is the most common variety and the one you'll spend the most time battling.

The vast bulk of your air pollution efforts will be of the local variety, keeping your Industrial zones far enough away to contain pollution but close enough to provide jobs that your Sims can get to.

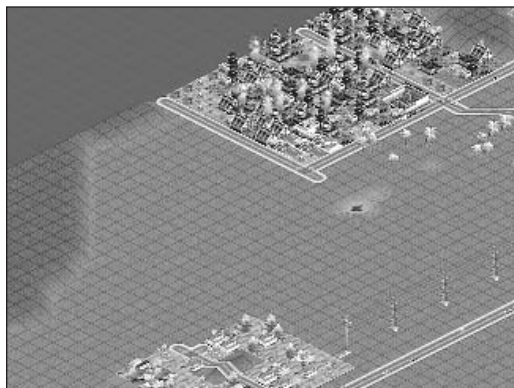


Fig. 14-12. The need to keep pollution at a distance must be balanced with your Sims' need to get to their jobs. Don't make your zones *too* far apart.



Fig. 14-11. To escape the effects of this Industrial zone, your Residential tiles should be at least this far away. Putting some Parks in the space in between might help too.



### CROSS REFERENCE

The transportation issues inherent in containing pollution (how far you can separate zones) are discussed in depth in Chapter 18.

## AIR POLLUTION AND STRUCTURES

The primary sources of air pollution are (in no particular order): Airports, Power Plants, garbage structures, Business Deal buildings, and Industrial zoned buildings. While these are your main offenders, almost every building produces some air pollution. Even beautiful Estates emit some pollution into the air via furnace exhaust or methane from the polo stables. Structures radiate air pollution like a dingy halo in fixed radii from their edges. The effect is highest directly adjacent to the structure and decreases steadily to the end of radius.



## AIR POLLUTION AND TRANSPORTATION

A moderate but noteworthy source of air pollution is auto transportation. Your Road and Highway tiles contribute ( $8 \times$  traffic density) to global and local pollution in proportion to traffic density. Obviously, reducing traffic has a significant impact on air pollution.

Mass transit stations produce a minor amount of pollution. Subway Tunnels and Rails, however, do not. Coax your Sims to abandon their cars and use public transportation: everyone's cleaner lungs will be your reward.



Fig. 14-13. Your Roads aren't making pollution any better. Reduce pollution by creating public transportation.

### TOP 10 AIR POLLUTION PRODUCERS

1. Toxic Waste Conversion Plant
2. Power Plant, Coal
3. Power Plant, Oil
4. Military Base
5. Incinerator
6. Power Plant, Gas
7. Spaceport
8. Waste-to-Energy Incinerator
9. University
10. Theme Park

### TOP 9 AIR POLLUTION REDUCERS

1. Country Club
2. Geyser Park
3. Large Park
4. Sports Park
5. Playground
6. Pond
7. Fountain
8. Small Park
9. Tree

## WATER

Unlike air pollution, water pollution is primarily a global concern. High levels of water pollution begin to seep into your city's water supply system and impact its effectiveness.

Once water pollution takes hold, it's factored into global pollution, reducing the life expectancy of your population.

## WATER POLLUTION AND STRUCTURES

The primary sources of water pollution are (in no particular order) Seaports, Power Plants, garbage structures, Business Deal buildings, and Industrial zoned buildings. While these are your main offenders, *almost every building produces some water pollution*. Even elegant Row Houses emit some pollution into the water via sewage.

Structures radiate water pollution like a murky halo in fixed radii from their edges. The effect is highest directly adjacent to the structure and decreases steadily to the end of the radius.

Most of the time, water pollution is invisible, fouling the water table under your buildings. Only when it's near open bodies of water does the effect become obvious. Don't forget about water pollution just because you can't see it.

## WATER POLLUTION AND WATER SUPPLY STRUCTURES

Water pollution has its most worrisome effect on your water supply system. Any amount of water pollution near your Pumping Stations, Water Towers, or Desalinization Plants will instantly reduce their Current Capacity.



Fig. 14-14. This Pumping Station is crippled by local water pollution.

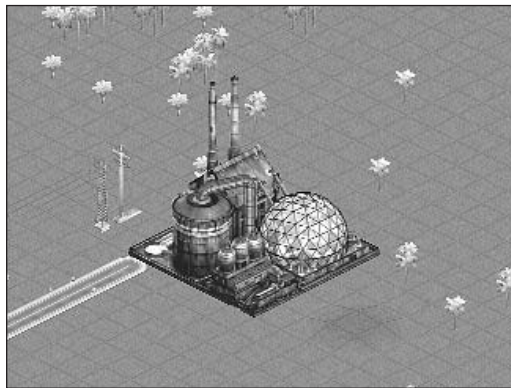


Fig. 14-15. Just because you can't see it doesn't mean it's not there. This Toxic Waste Conversion Plant is leaking severe amounts of water pollution.



**NOTE**

Reduced Current Capacity can cause your otherwise adequate water system to fall short of demand. This can cause abandonment of unwatered medium and high value zones and cancellation of water selling agreements. The last is a very costly error.

The only way to combat this effect (short of demolishing the polluters) is to build expensive Water Treatment Plants—enough to handle your city's load of fouled water.



Fig. 14-16. Water Treatment Plants are the only way to counteract water pollution.

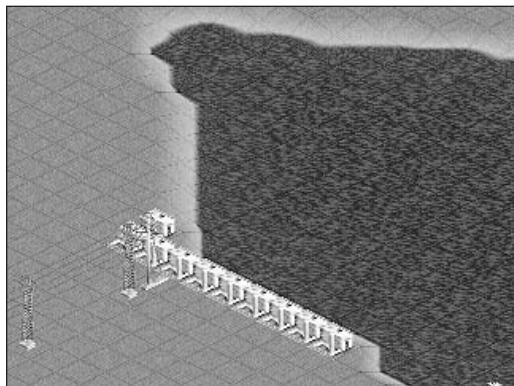


Fig. 14-17. Try to avoid water pollution problems by not building near your water supply sources. It's not always possible, but it can delay the need to build Water Treatment Plants.

**NOTE**

Farms are sensitive to the effects of local water pollution. If pollution's above medium, Farms will either fail to develop or, if they're already established, they'll be abandoned.

## TOP 10 WATER POLLUTION PRODUCERS

1. Toxic Waste Conversion Plant
2. Military Base
3. Power Plant, Coal
4. Power Plant, Oil
5. Spaceport
6. Power Plant, Gas
7. Incinerator
8. Waste-to-Energy Incinerator
9. Theme Park
10. University



## TOP 9 WATER POLLUTION REDUCERS

1. Country Club
2. Geyser Park
3. Large Park
4. Sports Park
5. Playground
6. Pond
7. Fountain
8. Small Park
9. Tree

## GARBAGE

Garbage is not actually pollution. Properly disposed garbage has no impact at all on pollution, either global or local.



### NOTE

**Garbage accumulation = total building output + previous building output – amount disposed**

When trash starts to pile up, however, it becomes a major factor. If your Landfills reach 100 percent capacity and you have no Neighbor Deal to absorb the excess, trash begins to muck up filler tiles in your zones. The stench caused by this refuse raises global pollution and dramatically depresses surrounding land values and aura for as long as the garbage sits on the tile.



Fig. 14-18. It doesn't take a professional city manager to know that trash on lawns is bad news.



### CROSS REFERENCE

Garbage effect on land value and aura are covered in Chapters 13 and 16, respectively.

**TIP**

You cannot bulldoze accumulated garbage. The only way to get rid of it is to expand your garbage disposal capacity. If you try to demolish garbage from filler tiles, it will disappear (along with the underlying filler) from that tile, but its effects will remain. Landfill tiles, by the way, can't be bulldozed at all.

To clear these tiles, expand your Landfills, strike a Neighbor Deal, or add garbage disposal structures to handle your city's full load. Once capacity has been expanded, trash will start to disappear and pollution and land value will return to normal.

In a properly functioning city, the only spots of garbage pollution on your Pollution Data Map should be your Landfills.

Garbage structures contribute considerable air and water pollution in exchange for their reduction of Landfill burden.

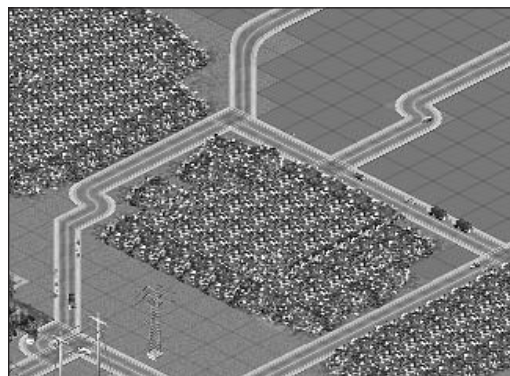


Fig. 14-19. Garbage pollution only forms where garbage is piled. Normally, the only place this happens is your Landfill.

**CROSS REFERENCE**

Full details on garbage disposal and structures can be found in Chapter 17.

Garbage output can be reduced via Ordinances or by establishment of a Recycling Center.

## TOP 10 GARBAGE PRODUCERS

1. Theme Park
2. University
3. Military Base
4. GigaMall
5. Stadium
6. Casino Row
7. Maximum Security Prison
8. Spaceport
9. Defense Contractor
10. Toxic Waste Conversion Plant

## RADIATION

Radiation pollution occurs when a Nuclear Power Plant explodes. This can be due to an Earthquake or other Disaster or if you run the plant at more than maximum capacity for too long.



### CROSS REFERENCE

Disasters are discussed in Chapter 26 and Power Plants in Chapter 17.



Fig. 14-20. Game very over. A nuclear Disaster is a game-ender unless you love impossible challenges.

When a Nuclear Power Plant blows, it spreads radiation pollution over a 40-tile radius. Contamination lasts for thousands of years and causes immediate abandonment and plunging land values within the radius. It also reduces land value and aura in the areas surrounding the blast radius.

Radiation Contamination does not factor into local or global pollution but it does augment global pollution's impact on life expectancy.



### TIP

If you have a nuke operating over capacity, or at all, save frequently. Because an explosion is a game-ender, you want be able to go back to your saved game if the unimaginable happens.

Bottom line: don't let your nukes explode.



## ORDINANCES

Several Ordinances impact pollution and garbage output.

## BACKYARD COMPOSTING

- Department: Environment
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: \$0.001 per Sim plus 5 times the number of Landfill tiles
- Pro: Reduces garbage output
- Con: Costs money



Setting up this extensive training program for your Sims teaches them to convert their organic garbage into helpful fertilizer. All that waste is, thereby, diverted from your waste disposal network (a 2 percent reduction in garbage output).

## CLEAN AIR

- Department: Environment
- Year Available: 1950
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim
- Pro: Lowers pollution, discourages dirty industry
- Con: Costs money, discourages dirty industry

This Environmental Ordinance reduces global air pollution by 10 percent and chokes the probability of dirty industry by 3 percent. The latter effect can be positive if your city has a high probability of attracting clean industry. Otherwise, this Ordinance will scare away the only kind of industry you have, the dirty kind, leaving you with empty Industrial zones.

## CONSERVATION CORPS

- Department: City Planner
- Year Available: 1915
- Prerequisites: None
- Monthly Cost: \$0.0003 per dirty industry tile
- Pro: Increases clean industry; decreases crime, water pollution, and garbage output
- Con: Costs money

The Conservation Corps works to beautify the city by picking up trash. It's funded through a monthly fee paid by your town's polluters. The probability of clean industry is raised by 4 percent while global crime is reduced by 8 percent. It also reduces water pollution and garbage output by 7 percent.

## INDUSTRIAL POLLUTANT IMPACT FEE

- Department: City Planner
- Year Available: 1950
- Prerequisites: More than 500 developed Industrial tiles
- Monthly Income: \$0.004 per dirty industry tile
- Pro: Decreases dirty industry and pollution, earns money
- Con: Decreases dirty industry

This anti-pollution measure targets your city's dirty industry to offset the cost of any future clean-ups. You can, however, use this money for whatever purpose you wish as it appears as Ordinance Income in your Budget window. It decreases the probability of dirty industry by 4 percent and reduces pollution by 10 percent. Don't pass it if you haven't laid the foundation for attracting clean industry; if dirty industry flees with nothing to replace it, your Industrial zones will be deserted.

## INDUSTRIAL WASTE DISPOSAL TAX

- Department: Environment
- Year Available: 1950
- Prerequisites: None
- Monthly Income: \$0.0005 per Commercial and Industrial tile
- Pro: Generates Income, reduces garbage
- Con: Lowers demand for Commercial and Industrial

This garbage tax is applied to all Industrial and Commercial inhabitants of your city and the resulting revenue appears as Ordinance Income in your Budget window. It also results in a reduction in garbage by 5 percent. Unfortunately, it also inhibits demand for both Commercial and Industrial zones by 2 percent and 8.5 percent, respectively.

## LANDFILL GAS RECOVERY

- Department: Environment
- Year Available: 1990
- Prerequisites: None
- Monthly Cost: \$0.0012 per Sim plus the year divided by 10
- Pro: Reduces air pollution
- Con: Costs money



You receive a unique opportunity with the advent of this pollution-taming technology. Not only does it have its desired effect (3 percent drop in air pollution), but it also produces a modicum of energy for your city's power network.

## LAWN CHEMICAL BAN

- Department: Environment
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: §0.0001 per Sim plus 5 times the number of Park tiles
- Pro: Reduces water pollution
- Con: Costs money, decreases Agricultural development

Your city can ban all use of polluting lawn chemicals but you must, in turn, spend money on finding viable alternatives. This well-meaning act decreases water pollution by 8 percent but decreases the probability of Agricultural development by 10 percent.

## LEAF BURNING BAN

- Department: Environment
- Year Available: 1960
- Prerequisites: None
- Monthly Cost: §0
- Pro: Lowers pollution and flammability
- Con: Increases garbage

Bar your Sims from burning leaves in their backyard and you'll lower two of your most dangerous stats: pollution (2 percent) and flammability (10 percent). The leaves, unfortunately have to go somewhere: back into the garbage (increasing it 2 percent).

## MANDATORY CAR SMOGGING

- Department: Environment
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: §0.001 per Sim plus the year divided by 10
- Pro: Reduces air pollution
- Con: Costs money, lowers aura

Dramatic reductions in citywide pollution by 10 percent make this environmental Ordinance in everyone's interest, whether they admit it or not. Many of your Sims are plenty peeved about the extra expense and they take it out on you with a 10 percent reduction in aura.

## NUCLEAR FREE ZONE

- Department: Education, Health, and Aura
- Year Available: 1990
- Prerequisites: None
- Monthly Cost: §0.00003 per Sim
- Pro: Increases aura
- Con: Prevents building of and causes decommissioning of Nuclear Power Plants

This Ordinance does wonders for your city's aura (plus 5 per tile) but limits your power supply options a bit. First, you won't be able to build any Nuclear Power Plants. Second, any you've already built will evaporate (not explode), wasting all the money you spent building them. If you're ever going to pass this one, do it early, before you build any nukes.

## PAPER REDUCTION ACT

- Department: Environment
- Year Available: 1960
- Prerequisites: None
- Monthly Cost: §0.001 per Sim
- Pro: Reduces garbage output
- Con: Costs money

This clever Ordinance reduces garbage output through the sheer force of bureaucracy. Businesses curb their paper usage enough to reduce garbage output by 2 percent.





## TIRE RECYCLING

- Department: Environment
- Year Available: 1940
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim
- Pro: Reduces garbage output and the cost of new Road tiles
- Con: Costs money

In the spirit of turning the old into the new, this Ordinance authorizes the use of discarded tires in the manufacture of asphalt for your Roads. Recycling the tires knocks 3 percent off your garbage output and 10 percent off the cost of building Road tiles.

## TRASH PRESORT

- Department: Environment
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: \$0.0015 per Sim
- Pro: Lowers garbage output
- Con: Costs money

Your Sims are willing to go to a little trouble to sort out their recyclables. This costs a chunk of your treasury in exchange for a 3 percent reduction in garbage output.

14

POLLUTION



# CRIME

Think of crime as “people pollution.” All structures and zones come with some measure of attendant crime. It radiates outward, sullyng any nearby structures. If allowed to fester unchecked, crime will bring your city to its knees.

Crime has the following effects:

- Reduces local land value
- Reduces local aura

This chapter will give you a peek into your city’s underworld and into the dark heart of every Sim. With this knowledge, you’ll see how to keep the lid on crime without suffocating your populace, how to plan ahead for criminal surges, and how to use your city’s shady side to benefit your treasury.

## CRIME IN GENERAL

Crime is as inevitable as the tides. For as long as there have been cities, anyone residing in them has lived knowing that crime is just part of the deal. That, however, doesn’t mean they have to like it.



Fig. 15-2. A suffocating police presence will bring crime down...but at what cost?



Fig. 15-1. Crowded, low-value zones are havens for crooked Sims.

The sad fact reflected in *SimCity 3000* is that a certain number of people, left to their own devices, will do as they see fit unless told otherwise. It’s up to you to *tell them otherwise*.

Though you can never eradicate crime (at least not without a substantial popularity price tag), you can keep it to a bearable level. This, however, requires constant diligence and, not surprisingly, money.

**NOTE**

For the serious number crunchers out there: crime updates every 40 days. You'll, therefore, have to wait more than a month to see the effects of your actions.

As with pollution, containing crime involves trade-offs. Certain effective strategies have serious downsides that may not be worth the law and order they obtain.

## CRIME GENERATION

Most buildings and zones have a defined crime impact on every tile within a radius of effect. This effect is constant over the entire radius of effect and does not dissipate with distance.

**NOTE**

Crime works differently than pollution. Pollution effect starts at full strength immediately around a structure and dissipates as it gets farther from the source. Crime, on the other hand, spreads evenly, equally affecting every tile in its radius.

Why the difference? Criminals don't like to travel too far. Within their local neighborhood, however, they'll work as much as they like. Thus, crime is limited in range but equally probable over the full area.

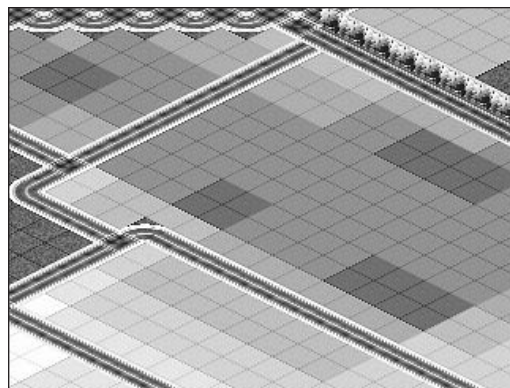


Fig. 15-3. Buildings "emit" crime like pollution. Counteract these effects with nearby Police Stations.



Fig. 15-4. An innocent structure between two crime producers will see boosted crime from *both* buildings.

Crime is additive, meaning when two crime radii overlap, their effects are *added*. If, for example, a tile sits between a building with a Crime Effect of 3 per tile and another with a Crime Effect of 10 per tile, its crime level (not considering the tile's own Crime Effect) will be 13.

Your primary contributors of crime are actually your basic zones. Their per tile effects may not look like anything to fear, but the cumulative effect can be brutal. Your Airports and Seaports, too, exert a more substantial Crime Effect on a per tile basis.

Tables 15-1 and 15-2 display crime figures for each type of zoned structure and building. These are not real values that you'll see reflected in the game, but rather a representation of *relative* effects. For these tables:

- The second column displays the radius of the crime effect. This begins at the *outer edge* of the zone or building but also includes the structure or zone itself. If, for example, a  $2 \times 2$  building has a radius of 5, the area of effect is a square  $12 \times 12$ .
- The third column, Effect per Tile, shows how much crime increase you'll see in every tile within the zone or building's radius.

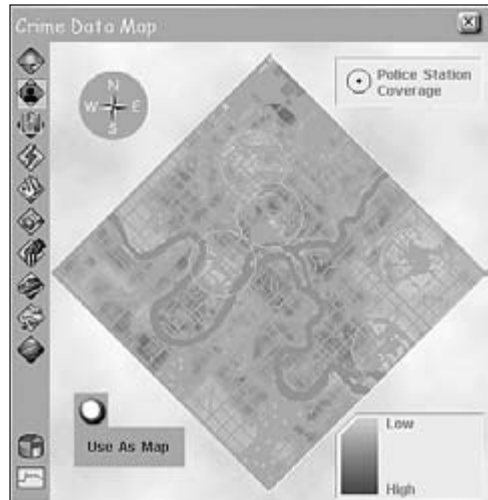


Fig. 15-5. Zones need Police Stations or they'll explode with crime. Especially beware of zones on the edges of police precincts.



Fig. 15-6. Your zones, particularly Industrial zones, tend to produce the most crime.

**Table 15-1. Zone Crime Effect, Radii, and Effect per Tile**

| <i>Zone</i> | <i>Radius</i> | <i>Effect per Tile</i> |
|-------------|---------------|------------------------|
| Res. LD LV  | 2             | 1                      |
| Res. LD MV  | 1             | 1                      |
| Res. LD HV  | 1             | 1                      |
| Res. MD LV  | 4             | 3                      |
| Res. MD MV  | 4             | 2                      |
| Res. MD HD  | 5             | 1                      |
| Res. HD LV  | 6             | 2                      |

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| <b>Zone</b>      | <b>Radius</b> | <b>Effect per Tile</b> |
|------------------|---------------|------------------------|
| Res. HD MV       | 4             | 4                      |
| Res. HD HV       | 4             | 3                      |
| Com. LD L-MV     | 2             | 3                      |
| Com. LD M-HV     | 1             | 5                      |
| Com. MD L-MV     | 4             | 3                      |
| Com. MD M-HV     | 3             | 4                      |
| Com. HD L-MV     | 6             | 4                      |
| Com. HD M-HV     | 6             | 4                      |
| Ind. LD Dirty    | 2             | 3                      |
| Ind. LD Clean    | 2             | 2                      |
| Ind. MD Dirty    | 3             | 4                      |
| Ind. MD Clean    | 2             | 4                      |
| Ind. HD Dirty    | 3             | 5                      |
| Ind. HD Clean    | 2             | 5                      |
| Ind. Agriculture | 1             | 1                      |
| Airport          | 3             | 4                      |
| Seaport          | 3             | 4                      |

**Table 15-2. Building Crime Effect, Radius, and Effect per Tile**

| <b>Building</b>             | <b>Radius</b> | <b>Effect per Tile</b> |
|-----------------------------|---------------|------------------------|
| Bus Station                 | 3             | 15                     |
| Casino Row                  | 17            | 25                     |
| City College                | 5             | 15                     |
| City Hall                   | 20            | -20                    |
| County Courthouse           | 30            | -30                    |
| GigaMall                    | 16            | 20                     |
| Military Base               | 20            | 20                     |
| School                      | 5             | 10                     |
| SimCity Castle (Easter Egg) | 40            | -80                    |
| Small Park                  | 3             | 6                      |
| Spaceport                   | 5             | 20                     |
| Stadium                     | 16            | 20                     |
| Stock Exchange              | 1             | 3                      |
| Subway Station              | 3             | 25                     |

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| <b>Building</b>        | <b>Radius</b> | <b>Effect per Tile</b> |
|------------------------|---------------|------------------------|
| Subway-to-Rail Station | 3             | 25                     |
| Theme Park             | 14            | 16                     |
| Train Station          | 3             | 20                     |
| University             | 10            | 15                     |



## NOTE

You may notice that the biggest crime fighter of all is not included in Table 15-2. That's because the way Police Stations counteract crime is different. Look to Chapter 19 to learn how they function.

# LOCAL CRIME VS. GLOBAL CRIME

All building and zone Crime Effects are localized, affecting surrounding inhabitants of your city directly (with higher local crime ratings) and indirectly (in land value and aura). For instance, if a building increases crime by 5, then crime levels on all of the tiles within its radius are increased by 5 (in addition to each tile's own crime level).

This adjusted crime level is then increased or reduced locally by any passed Ordinances.

Global crime, then, is the average of all tiles on the map. However, it doesn't have any direct effect on your city except to inform you of where you stand.

Think of it in these terms: it matters far less what crime is like at large than what it's like at *your* house. Endeavor to fight crime everywhere and your global crime figures will take care of themselves.

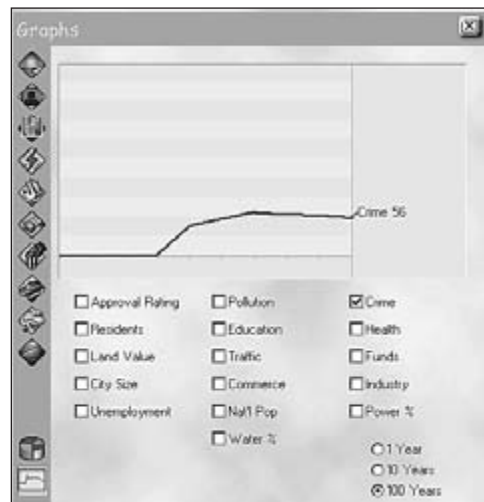


Fig. 15-7. The Crime Chart line indicates the average of citywide crime.



# CRIME DATA

Crime status can be found in several ways. Each method can give you an honest assessment of your crime fighting (or tolerating) efforts.

- Queries of individual tiles or RCI zoned buildings show the level of crime (ranging from None to Rampant) in that spot.
- The Crime Data Map and Crime Layer View show concentrations of undeterred crime on your city's map, pointing you to trouble spots.
- The Crime Data Map also displays Police Station areas of coverage. This can be handy for locating your stations.
- The crime line on the Chart precisely displays your city's current level of wrongdoing not being handled by the police.
- Audio clues at low zoom levels (4 or 5) tell you if you're looking at a high crime neighborhood. Car alarms are a dead giveaway.

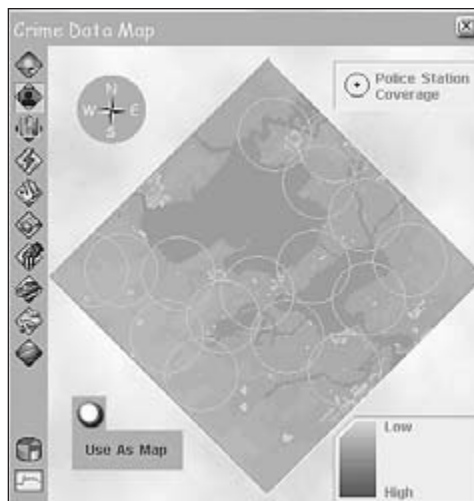


Fig. 15-8. Police Station coverage is shown in the Crime Data Map.

# CRIME EFFECTS

Crime impacts your city in two areas: land value and aura.

## LAND VALUE



### CROSS REFERENCE

Land value and crime are covered in Chapter 13.



Fig. 15-9. Land value is strongly depressed by above-average crime. Thus, areas of low value tend to be among your most lawless.



Local land values are impacted by crime to the extent that crime in individual tiles is below, at, or above average.

- If crime is average, it has no effect on land value.
- If crime is below average, it has a positive effect on land value.
- If crime is above average, it has a negative effect on land value.



## NOTE

Average crime for land value purposes is 25, but this isn't a number you'll see in the game. Concentrate instead on keeping all local crime rates to Low or below.

# AURA



## CROSS REFERENCE

Aura and its relation to crime are hashed out in Chapter 16.

Local aura is also altered by the presence of crime. Unlike land value, however, there cannot be a positive aura effect from low crime—any crime is too much crime for aura purposes.

The global Crime Effect (the sum of other applicable building effects and a tile's own Crime Effect) is divided by -4. The resulting amount is then deducted from local aura on every inhabited tile on the map.

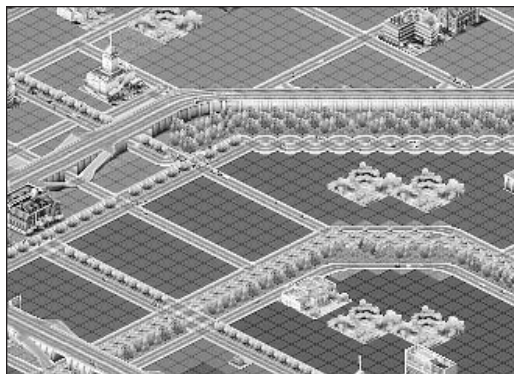


Fig. 15-11. Strategically placed and spaced Police Stations are your best defense against the forces of evil.



Fig. 15-10. Your city's happiness, expressed as aura, is locally driven down by high crime.

For example, if a tile's aura is currently 10 and it obtained a crime level of 30, its local aura would be reduced by 7.5.

# FIGHTING CRIME

Crime is fought by your police force. The greater, more efficient, and more evenly placed your police coverage, the lower crime will be.

**CROSS REFERENCE**

For full details on establishing your police force, look to Chapter 19.

## BASIC POLICE FUNCTION

Every Police Station has an area of effect that expands and contracts depending on its funding. Lowering your Police Department's budget below 100 percent shrinks its area of coverage (its precinct) while raising funding expands the radius of effect (up to a point).

Unlike crime, police coverage diminishes with distance from a Police Station. Few are foolish enough to commit crimes right at the doorway of a Police Station but, as the sirens become more distant, Sims' criminal ids come out to play.

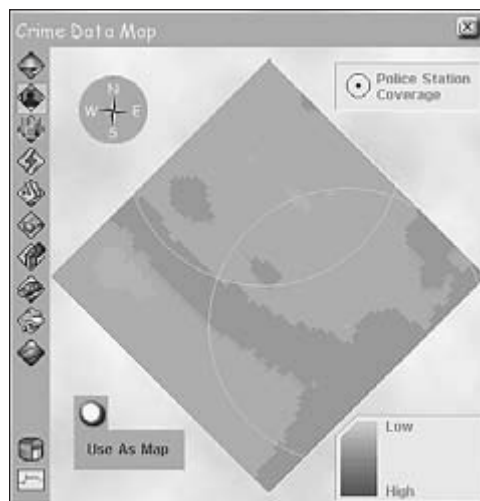


Fig. 15-13. Overlap the outer edges of your police precincts to provide more even coverage.



Fig. 15-12. Police coverage is represented by a circle of crime deterrence. The anti-Crime Effect is strongest near the Station and drops as distance increases.

To combat this fading effect, overlap the edges of your police precincts. This increases coverage at the otherwise low coverage areas. Don't, however, go overboard in overlapping (see Police Costs and Dangers, pg. 216).

Law enforcement is further maximized by establishing a sufficient number of Jails—without a Jail, police have to release more offenders into the community. To get the most out of your Police Stations, therefore, be sure to have enough Jails to handle your Police Stations' output of convicted criminals.

The answer to crime, therefore, must be lots and lots of police. Right? Well, not exactly.

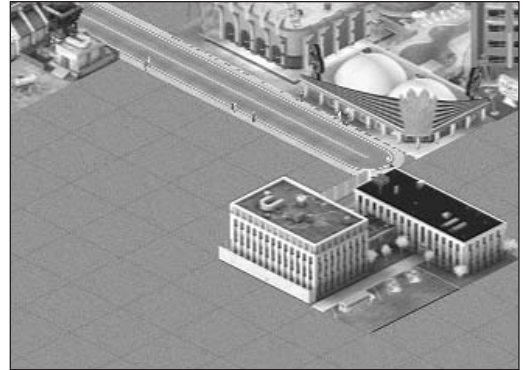


Fig. 15-14. A Jail empowers Police Stations to maximum coverage. In other words, a Police Station isn't fully effective without a place to put criminals. However, beware Jails' NIMBY effect.

## POLICE COSTS AND DANGERS

Police coverage sufficient to eliminate crime has two titanic downsides.

It costs *a lot* of money to maintain that many Police Stations and Jails. First, they cost a chunk of change to set up (Police Station: \$500, Jail: \$2,500). Second, every police structure requires a monthly amount (Police Station: \$30, Jail: \$75 at 100 percent funding) to function at full efficiency; you'd be ill advised to run your department too far below 100 percent.

| Budget                      |                                     | Expenditures           | Income               |                                     |
|-----------------------------|-------------------------------------|------------------------|----------------------|-------------------------------------|
| 100% Budget<br>January 1926 | Adjust:                             | Yr. To Date<br>Expense | Year End<br>Estimate | Meet<br>Adviser                     |
| Ordinances                  | <input checked="" type="checkbox"/> | \$0                    | -\$684               |                                     |
| Neighbor Deals              | <input checked="" type="checkbox"/> | \$0                    | -\$2,852             | <input checked="" type="checkbox"/> |
| Loans                       | <input checked="" type="checkbox"/> | \$0                    | \$0                  | <input checked="" type="checkbox"/> |
| Education                   | <input type="checkbox"/>            | \$0                    | -\$4,000             | <input checked="" type="checkbox"/> |
| Public Health               | <input type="checkbox"/>            | \$0                    | -\$1,200             | <input checked="" type="checkbox"/> |
| Fire                        | <input type="checkbox"/>            | \$0                    | -\$828               | <input checked="" type="checkbox"/> |
| Roads                       | <input type="checkbox"/>            | \$0                    | -\$188               | <input checked="" type="checkbox"/> |
| Police                      | <input type="checkbox"/>            | \$0                    | -\$3,204             | <input checked="" type="checkbox"/> |
| Mass Transit                | <input type="checkbox"/>            | \$0                    | -\$2,316             | <input checked="" type="checkbox"/> |
| Year to Date Income         |                                     | \$0                    | \$9,288              |                                     |
| Year to Date Expense        |                                     | \$0                    | -\$15,312            |                                     |
| Year to Date Cash Flow      |                                     | \$0                    | -\$6,024             |                                     |
| Current Funds               |                                     |                        | \$12,737             | <input checked="" type="checkbox"/> |
| End of Year Funds           |                                     |                        | \$6,713              |                                     |

Fig. 15-15. Your budget may not be able to handle your ideal level of police coverage.

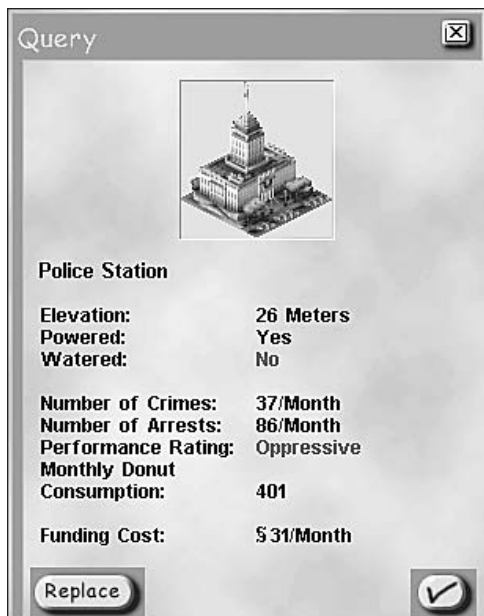


Fig. 15-16. Query your Police Stations to see if crime fighting has become Oppressive. The budding fascists among you may want this, but it will seriously impact your Approval Rating and increase the chance of Riot.

The second major downside to blanket police coverage shows that you can have too much law and order. If coverage in a given police precinct is rated Oppressive, it has a downward effect on local aura to the tune of up to -10.

If the number of arrests in a precinct exceeds the number of crimes, coverage is considered Oppressive. When you lay down a new Police Station, Query it *and all nearby Stations* to see if you've gone too far in any of them: if coverage is Oppressive, you'll see it in bright red letters!



### TIP

If you're trying to stay just this side of the Oppressive line, save before putting down a Police Station. Then, if arrests go higher than crimes, reload the city and move the Station a bit farther away.

## A NOTE ON GAMBLING

Some would say that gambling is acceptable crime. By decriminalizing games of chance, you accept this lawlessness in exchange for a cut of the cash. It's very lucrative for your city.



### TIP

If you pass the Legalized Gambling Ordinance, more crimes will be committed in every tile of your city. Police coverage, therefore, is denser without becoming Oppressive. Remember this if you decide to repeal the Ordinance; you'll need to eliminate some coverage to provide only optimal law enforcement.



Fig. 15-17. Even without this crime-generating Casino, legalizing gambling severely increases crime in every tile in your city.

15

CRIME

Unfortunately, allowing gambling fosters other illegal activity among all your Sims (a 20-point increase on every tile). This boost, however, can be counteracted with extra police coverage.



## CROSS REFERENCE

See Chapter 25 for details on the Casino and other Business Deals.

Finally, allowing gambling permits you to build a Casino in your city. This financially beneficial construction further increases crime in a large surrounding radius. Again, some extra Police Stations undo the damage; the cost of this extra law enforcement is still less than the Income you'll receive (\$350 per month Income versus \$30 per month per Station).

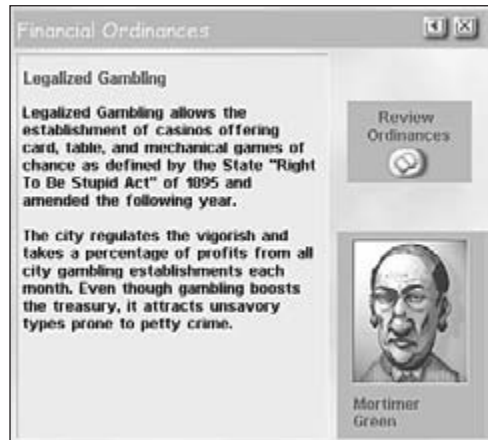


Fig. 15-18. With the Legalized Gambling Ordinance in effect, you need more Police Stations citywide and certainly one right next to your Casino.

# ORDINANCES

Several Ordinances reduce or increase crime in every tile on the map.

## CONSERVATION CORPS

- Department: City Planner
- Year Available: 1915
- Prerequisites: None
- Monthly Cost: \$0.0003 per dirty industry tile
- Pro: Increases clean industry, decreases crime, water pollution, and garbage output
- Con: Costs money

The Conservation Corps works to beautify the city by picking up trash. It's funded through a monthly fee paid by your town's polluters. The probability of clean industry is raised by 4 percent while local crime is reduced by 8 points on every tile. It also reduces water pollution and garbage output by 7 percent.



## JUNIOR SPORTS

- Department: Health, Education, and Aura
- Year Available: 1900
- Prerequisites: Must have one School
- Monthly Cost: \$0.001 per Sim plus 2 times the number of Schools
- Pro: Cuts crime and boosts EQ
- Con: Costs money

Running this after-school junior sports league helps everyone. Keeping kids (aged 8–16) on the courts and off the streets reduces crime by 2 in every tile. The program's rigorous academic requirements also have an impact: EQ is increased 0.4 per month when the Ordinance is in effect.

## LEGALIZED GAMBLING

- Department: Finance
- Year Available: 1900
- Prerequisites: None
- Monthly Income: \$0.00025
- Pro: Produces Income, allows Casino to be built (if offered)
- Con: Increases crime

There's no free money and this Ordinance provides no exception to the rule. Your treasury will get a monthly cut of all city gambling income. With this filthy lucre, however, comes a large increase in crime (plus 20 on every tile!) over your entire city. On the upside, passing this Ordinance allows you to build Casino Row if it's offered in a Business Deal.

## NEIGHBORHOOD WATCH

- Department: Public Safety
- Year Available: 1970
- Prerequisites: None
- Monthly Income: \$0.0001 per Sim plus 12 times the number of Jails
- Pro: Reduces crime on every cell
- Con: Costs money

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CRIME

Your police can only do so much. Call out the citizens by instituting a Neighborhood Watch program. Crime is reduced on every tile by -4. Though all participants are volunteers, it still costs some Simoleons to run the program.

## YOUTH CURFEW

- Department: Public Safety
- Year Available: 1900
- Prerequisites: One Police Station
- Monthly Income: §0.0001 per Sim plus 3 times the number of Police Stations
- Pro: Lowers crime, boosts EQ
- Con: Costs money

It's for their own good! This program mandates kids to be off the streets by 10 p.m. A small amount of money is needed for enforcement but, otherwise, the measure is good for everyone: crime drops citywide by -2 per tile and the kids (aged 1-21) get more sleep and do better in school (reflected by a 0.001 monthly increase in EQ as long as the Ordinance is in effect).





# AURA

Aura is the good feelings generated by your city. A nice place to live makes everyone feel good. Specifically, it makes them feel good about you, their Mayor.

Do everything in your power to cheer up your Sims, and they will reward you heartily with gifts aplenty. At the very least, keep your city's aura from bottoming out to prevent some very ugly public outbursts by your populace.



Fig. 16-2. Good aura allows you to build snazzy and unique structures.

Aura is affected by:

- Pollution (air, water, garbage, and radiation)
- Education Quotient
- Life Expectancy
- Crime
- Police coverage
- Fire coverage
- Ordinance Effects

This chapter will guide you through the steps for making your Sims totally happy.



Fig. 16-1. Your city looks successful, but are your Sims really happy?

Aura has the following effects:

- Represents your Mayoral Approval Rating
- Triggers several Reward buildings
- Raises the probability of parades thrown in your honor
- Impacts the probability of the Riot Disaster

16

AURA

# AURA IN GENERAL

Admit it, you want to be liked. You want to know that your tireless efforts to give your Sims a spectacular place to live are appreciated and adored. That's what aura is all about.

Though focusing on your city's aura may not be as immediate or glamorous as fighting pollution and crime, don't ignore it. You can certainly have a successful city without a high aura rating, but you'll never have a truly great metropolis.



## NOTE

**For the serious number crunchers out there: aura updates every 50 days. Therefore, you'll have to wait more than a month to see the effects of your actions.**

A high aura rating improves your city in myriad ways. First, it just feels good to be loved. Second, the primary causes behind positive aura (low crime, low pollution, etc.) benefit your city in and of themselves. Third, and most importantly, the indirect effects of good aura (Reward buildings) further improve your city's land value, lower its pollution, and decrease its crime.

In a world full of vicious cycles, it's nice to know you have a way to create a happy cycle. Just keep one eye on aura and your city will take considerable care of itself.



**Fig. 16-3.** Good aura allows you to build Reward buildings that can lower pollution and crime and raise aura and land value. These, in turn, raise aura further. And so on.



# AURA GENERATION

Aura is generated by the places your Sims live and work—unzoned tiles (except water tiles discolored by water pollution) have no aura. Each building possesses a radius of effect that alters the aura of nearby tiles. The precise impact of that radius is determined by a building's per tile effect; all tiles within the radius are raised or lowered by the amount of the effect.

Aura Effect is constant over the entire area of effect and does not dissipate with distance.

Aura is additive, meaning when two aura radii overlap, their effects are *added*. If, for example, a tile sits between a building with an Aura Effect of 3 per tile and another with an Aura Effect of 2 per tile, its aura level (not considering the tile's own aura effect) will be 5.

Tables 16-1 and 16-2 display aura figures for both RCI structures and non-RCI buildings. These are not real values that you'll see reflected in the game, but they are representations of *relative* effects. For these tables:

- The second column displays the radius of the aura effect. This begins at the outer edge of the zone or building but also includes the structure or zone itself. If, for example, a  $2 \times 2$  building has a radius of 5, the area of effect is  $12 \times 12$  tiles. Note that an aura radius of 0 means that the building only affects *its own* aura.
- The third column, Effect per Tile, shows how much aura increase you'll see in every tile within a building's radius.



Fig. 16-4. This Shopping Mall emits a lot of good aura.

**Table 16-1. RCI Building Aura Effect, Radius, and Effect per Tile**

| <i>Zone</i>   | <i>Radius</i> | <i>Effect per Tile</i> |
|---------------|---------------|------------------------|
| LD Dirty Ind. | 0             | -1                     |
| MD Dirty Ind. | 0             | -2                     |
| HD Dirty Ind. | 0             | -3                     |
| Agriculture   | 4             | 2                      |

**Table 16-2. Non-RCI Building Aura Effect, Radius, and Effect per Tile**

| <i><b>Building</b></i>      | <i><b>Radius</b></i> | <i><b>Effect per Tile</b></i> |
|-----------------------------|----------------------|-------------------------------|
| Airport                     | 0                    | -2                            |
| Bus Station                 | 4                    | -1                            |
| Casino Row                  | 15                   | 2                             |
| City College                | 10                   | 2                             |
| City Hall                   | 20                   | 3                             |
| Country Club                | 15                   | 1                             |
| Garbage                     | 8                    | -6                            |
| Geyser Park                 | 20                   | 1                             |
| GigaMall                    | 30                   | 3                             |
| Historic Building           | 8                    | 1                             |
| Hospital                    | 15                   | 2                             |
| Jail                        | 15                   | -2                            |
| Library                     | 15                   | 2                             |
| Lighthouse                  | 15                   | 2                             |
| Marina                      | 15                   | 2                             |
| Maximum Security Prison     | 20                   | -2                            |
| Mayor's House               | 10                   | 2                             |
| Medical Research Center     | 15                   | 2                             |
| Military Base               | 20                   | 1                             |
| Museum                      | 20                   | 1                             |
| Parking                     | 1                    | -1                            |
| Performing Arts Center      | 20                   | 3                             |
| Polluted Water              | 8                    | -2                            |
| Power Plant, Fusion         | 10                   | -1                            |
| Power Plant, Microwave      | 15                   | -2                            |
| Power Plant, Nuclear        | 20                   | -3                            |
| Pumping Station             | 1                    | -1                            |
| Rail Station                | 8                    | -2                            |
| Seaport                     | 0                    | -2                            |
| SimCity Castle (Easter Egg) | 30                   | 30                            |

*Continued on next page*



*Continued from previous page*

| <b>Building</b>              | <b>Radius</b> | <b>Effect per Tile</b> |
|------------------------------|---------------|------------------------|
| Small Park                   | 8             | 2                      |
| Spaceport                    | 10            | 2                      |
| Stadium                      | 20            | 2                      |
| Statue Fountains             | 15            | 1                      |
| Stock Exchange               | 15            | 1                      |
| Theme Park                   | 15            | 1                      |
| Toxic Waste Conversion Plant | 25            | -3                     |
| Trees                        | 1             | 1                      |
| University                   | 20            | 1                      |
| Water Tower                  | 1             | -1                     |
| Zoo                          | 20            | 1                      |

## LOCAL AURA VS. GLOBAL AURA

Local aura is the cumulative Aura Effect on any given tile. This figure is the sum of Building Effects, Ordinance Effects, pollution level (air, water, garbage, and radiation), Education Quotient, Life Expectancy, crime, and fire and police coverage.

Global aura, on the other hand, is the average of all local aura levels.



### TIP

Place aura-reducers near the edges of your map. This puts much of their radius of effect "off the map," thus lessening their impact on your global average.



Fig. 16-5. All surrounding buildings and several global factors make this neighborhood a very happy place.

In itself, local Aura Effect has no impact on the game except that it factors into global aura. Because aura itself does not add to land value, it may *seem* that local aura doesn't really merit much strategy.

On the contrary, it is very important to create and protect areas of high aura to maximize your global aura effect. Because global aura is the average of all local aura ratings, don't place aura-reducing structures near areas with good aura. Instead, place them in areas of unavoidable bad aura (e.g., near necessary clusters of high pollution) where they cannot significantly lower the local aura.



Fig. 16-6. Put big aura killers near very low aura areas. Because aura can only go so low, placing them in these areas has a lesser impact on the global average.



## NOTE

As with all other Building Effects (pollution and crime), aura strategy involves trade-offs. You'll want, for example, to place that Subway Station near your residential areas (to benefit transportation), though its aura effects may dictate placing it in a slightly different place. Fortunately, buildings with negative Aura Effect also (in general) have negative Pollution and/or Crime Effects as well. This makes your choices a lot easier.

# AURA DATA

Aura status can be found in several ways:

- Queries of the Mayor's House reflect global aura in the number of eggs thrown annually.
- The Aura Data Map and Aura Layer View show local aura in each tile on your city's map, pointing you to trouble spots and very happy places.

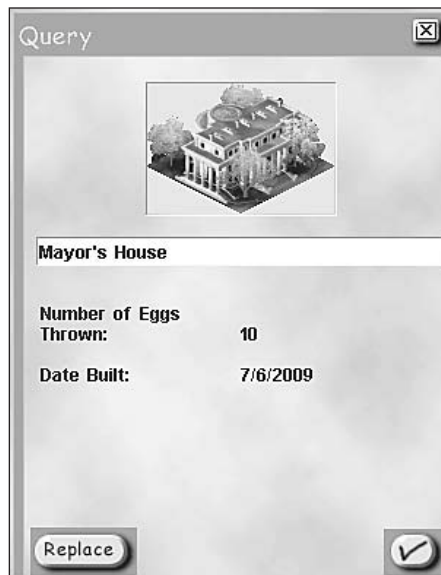


Fig. 16-7. Lots of eggs mean that your Sims are not happy with your performance.



- The Approval Rating line on the Chart can show you your city's current level of global aura and, hence, your Sims' opinion of you as Mayor.
- Various Query categories indirectly reflect global and local aura: Apples for Teacher, Boats Berthed, and Manure Donated to Parks.



Fig. 16-8. The Aura Data Map is your best tool to diagnose aura problems and spot areas in need of protection.

## AURA EFFECTS

The global level of aura has several effects.

## APPROVAL RATING

Aura is directly related to your Approval Rating. The higher your global aura, the higher your Mayoral Approval Rating.

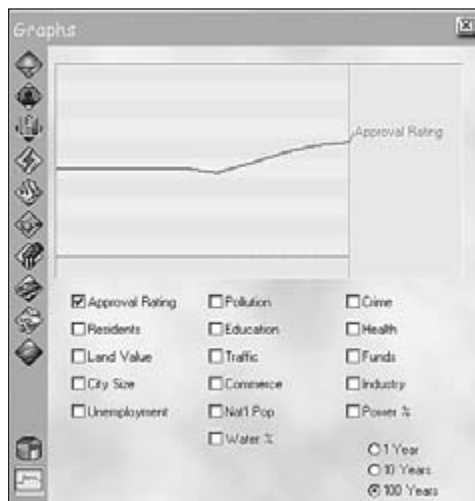


Fig. 16-9. View your Approval Rating in the Chart. Approval Rating and global aura are the same.



## TRIGGERS REWARDS

Many of the Reward buildings granted to your city are tied in part to global aura. In addition to the basic population thresholds for each Reward building, most require a minimum of global aura before the Reward is offered.



### CROSS REFERENCE

For a complete discussion of the requirements for Reward buildings, see Chapter 27.



Fig. 16-10. Good global aura makes these offers possible.

## PARADES

Frequently, your Sims will throw parades in your honor or in honor of important holidays or developments. These events require, among other things, a minimum global aura level before they are offered to you.



Fig. 16-11. Parades occur, in part, because of positive global aura.

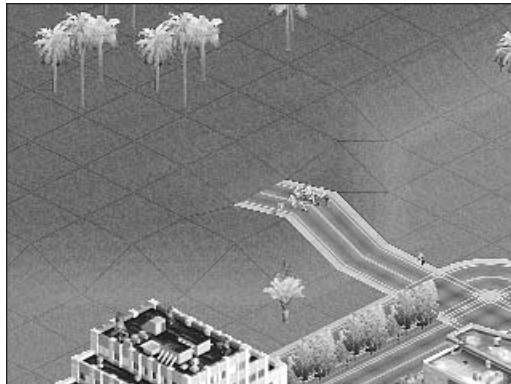


Fig. 16-12. If you allow your aura to slip, it can combine with high unemployment and bring on Riots.

## RIOTS

One of your city's potential Disasters is partially triggered by aura. If unemployment and aura are below a certain level, Riots become a possibility. High aura, therefore, prevents Riots even in the face of rampant unemployment.



# ENHANCING AURA

Elevating your Sims' spirits requires maintenance of several important independent factors.

## BUILDING EFFECTS

Buildings with aura effects impact the structures around them. Carefully place buildings with aura enhancing qualities to fortify aura in a particular location and dump buildings with bad aura in already low aura neighborhoods where they can do no harm.

Here are your top 10 contributors of good and bad aura:

### TOP 10 AURA ENHANCERS

1. GigaMall
2. City Hall
3. Performing Arts Center
4. Stadium
5. Hospital
6. Medical Research Center
7. Library
8. Marina
9. Lighthouse
10. Casino Row

### TOP 10 AURA REDUCERS

1. Garbage
2. Toxic Waste Conversion Plant
3. Power Plant, Nuclear
4. HD Dirty Industry
5. Maximum Security Prison
6. Power Plant, Microwave
7. Jail
8. Rail Station
9. Polluted Water
10. MD Dirty Industry

## CRIME

The level of citywide (global) crime reduces local aura equally on each tile. Global crime is divided by -4 to determine the effect on aura.



### CROSS REFERENCE

For more on crime and police coverage see Chapters 15 and 19.

It's important to note that crime's effect on aura is *always negative* even if crime is minimal. The lower the crime, of course, the less the effect. A crime level of 1, for example, will reduce aura by 0.25 while a crime rate of 100 will reduce aura by 25. For aura purposes, no level of crime is acceptable.

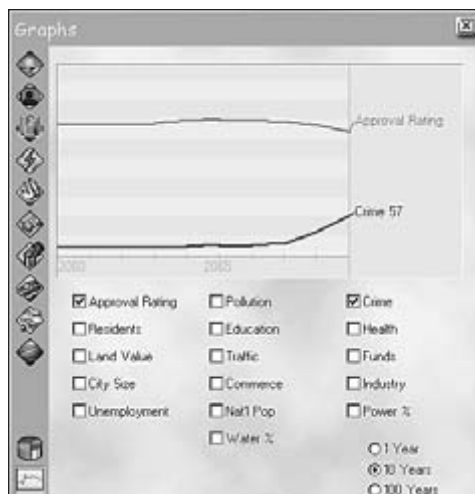


Fig. 16-13. High citywide crime means a big hit to local aura.

## FIRE COVERAGE

The amount of your city covered by Fire Stations increases local aura on each tile. The percentage of fire coverage is divided by 10 to determine this effect.



### CROSS REFERENCE

More about fire can be found in Chapter 19.

Therefore, 100 percent fire coverage yields a 10-point boost in aura. Minimal fire coverage gives only a fractional boost. Coverage at more than 100 percent (caused by overlapping precincts) adds even more.



Fig. 16-14. Blanket your city with Fire Stations to get a nice aura boost. Unsinged Sims are always cheery.



## POLICE COVERAGE

The amount of police presence in your city can add to or subtract from local aura on each tile.

If coverage is optimal (100 percent), you'll see a jump of 20 aura points per tile. This number decreases as the percentage nears 0.

If coverage is above 100 percent, it's considered Oppressive, thus reducing aura. Oppressive police coverage can reduce aura by up to 10 points on each tile.



Fig. 16-15. Keep your city well covered by police, but don't go overboard or you'll make things worse.

## POLLUTION

Pollution across your city has a very serious downward effect on local aura on each tile. The amount of citywide pollution is divided by a factor (depending on the type of pollution) that yields a reduction in aura. These factors are:

- Garbage: -20
- Radiation: -100
- Water Pollution: -200
- Air Pollution: -300

Garbage, therefore, is the largest aura assassin, followed by radiation, water, and air pollution.

As with crime, even minimal pollution has a small negative affect on aura. No level of pollution can have a positive affect on aura.

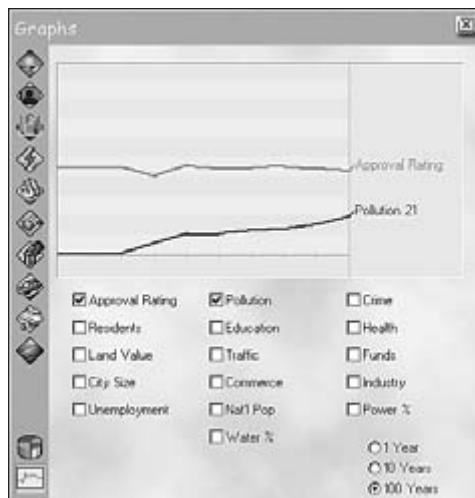


Fig. 16-16. High pollution means trouble for local aura.

## EDUCATIONAL QUOTIENT

Your Sims' smarts add substantially to local aura on each tile.

If EQ is 120 or above, aura is increased on each tile by up to 40 points.

If, on the other hand, EQ is 70 or below, aura will decrease by up to -80 points.

Bottom line: keep your Sims smart to keep up aura. A smart Sim is a happy Sim.

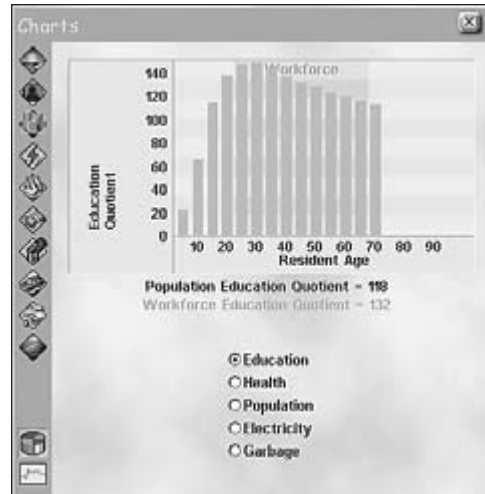


Fig. 16-17. Smart is not only beautiful, it's very, very happy.

## LIFE EXPECTANCY

As with Educational Quotient, Life Expectancy of your Sims can either raise or lower local aura on each tile.

If LE is above 75, you can expect a rise in aura of up to 60 points on each tile. Life Expectancy levels below 60, however, will reduce aura by up to 120 on each tile. Keep those Hospitals ample and well funded if you want healthy aura.



Fig. 16-18. Lots of Hospitals are key to high aura.



## ORDINANCES

Several Ordinances enhance or diminish aura in every tile on the map.

### ALTERNATE DAY DRIVING

- Department: Transportation
- Year Available: 1950
- Prerequisites: None
- Monthly Cost: §0.0001 per Sim
- Pro: Reduces traffic
- Con: Costs money and lowers aura

This Ordinance lowers traffic (10 percent per month) by requiring Sims to leave their cars at home every other day (based on their license plate numbers). The inconvenience of this, however, makes many of your Sims mad at you, lowering aura by -5 per tile.

### MANDATORY CAR SMOGGING

- Department: Environment
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: §0.001 per Sim plus the year divided by 10
- Pro: Reduces air pollution
- Con: Costs money, lowers aura

Dramatic reductions in citywide pollution by 10 percent make this environmental Ordinance in everyone's interest, whether they admit it or not. Many of your Sims are plenty peeved about the extra expense, however, and they take it out on you with a reduction of 10 in aura.

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AURA

## NUCLEAR FREE ZONE

- Department: Education, Health, and Aura
- Year Available: 1990
- Prerequisites: None
- Monthly Cost: §0.00003 per Sim
- Pro: Increases aura
- Con: Prevents building of and causes decommissioning of Nuclear Plants

This Ordinance does wonders for your city's aura (plus 5 per tile) but limits your power supply options a bit. First, you won't be able to build any Nuclear Power Plants. Second, any you've already built will evaporate (not explode), wasting all the money you spent building them. If you're ever going to pass this one, do it early, before you build your first nuke.

## PARKING FINES

- Department: Transportation
- Year Available: 1900
- Prerequisites: None
- Monthly Income: §0.001 per Sim
- Pro: Reduces traffic, generates Income
- Con: Lowers aura

Parking fines are a small but helpful revenue source, and they tend to reduce traffic (2 percent per month). On the downside, however, they make your Sims very angry—angry enough to reduce aura by 5 on every tile.



# PART 4: DEPARTMENTS AND OTHER MAYORAL CONCERNS

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The general concepts and under-the-hood forces discussed in Part 3 are what make *SimCity 3000* tick, but understanding them is only part of the picture. To succeed as a mayor, you must come to grips with the various city departments and concerns that will be your day-to-day responsibilities as mayor. It's all well and good to understand land value and pollution, but you'll never build a city without knowing how, for example, to build a Road or establish a power grid.

This section focuses attention on the mechanics of city building. From the most basic utility functions to dealing with Disasters, you must be well versed in everything your city needs to run itself. To that end, consult Part 4 to learn about:

- Utilities
- Transportation
- Public Safety
- Health
- Education
- Recreation
- Ordinances
- Neighbors
- Business Deals
- Disasters
- Rewards
- Landmarks
- Timeline of Date Activated Events
- Special Report: How to Get Clean Industry



## UTILITIES

To function, your city requires three kinds of utility infrastructures:

- Power
- Water
- Garbage Disposal



Each utility functions by its own rules and through its own unique structures. This discussion will guide you through these three areas, describe how to set up effective and inexpensive utilities, and outline the ancillary effects these networks produce in your city.

## UTILITY STRUCTURE BASICS

### AVAILABILITY

Utility technology develops over time. Thus, not all facilities will be available when you begin your city (even for cities starting in 2000).



#### TIP

Keep these dates in mind as you project your investments in infrastructure. If, for example, you're nearing the development of a new, preferable source of power, you may want to save up for this innovation in advance. Also, if your old plants are nearing retirement before a preferable plant is invented, consider importing your power from a neighbor in the interim.

Utility invention dates are listed in Table 17-1 on the following page.

## LIFE SPAN

Each kind of utility structure has an average maximum life span, which is noted in its Query window. When a structure reaches retirement, it will quietly decommission and disappear—prepare for this eventuality by bringing replacement power sources online before the fateful day.

Power Plant life span can vary by plus or minus 15 percent. In other words, a 60-year plant's life could be as short as 51 years or as long as 69.

Query

**Coal Power Plant**

**Age (Max):** 16 yrs. (77 yrs.)  
**Elevation:** 26 Meters  
**Pollution Generated:** Hazardous

**Maximum Power Capacity:** 6,000 MW-h/Month  
**Current Power Capacity:** 6,000 MW-h/Month  
**Usage:** 5,986 MW-h/Month

Replace

✓

Fig. 17-1. This Power Plant will actually live longer than average.

## DECLINE AGE

Every utility structure operates at full capacity for an average amount of time before its capacity starts to decline. Once the decline age is reached, the structure begins to diminish in capacity as it approaches its maximum age. By its final year, the facility will have throttled down to near zero capacity.

For Power Plants, decline age, like maximum life span, can vary from the average by plus or minus 15 percent. Thus, a 60-year plant, with an average decline age of 48 years, can actually begin to decline at anywhere from 41 to 55 years.

**Table 17-1. Utility Structures by Year of Availability, Cost, Life Span, and Decline Age**

| <i>Plant</i>                | <i>Year Available</i> | <i>Cost</i> | <i>Avg. Life Span</i> | <i>Avg. Decline Age</i> |
|-----------------------------|-----------------------|-------------|-----------------------|-------------------------|
| Coal Power Plant            | 1900                  | \$5,000     | 70 years              | 56 years                |
| Oil Power Plant             | 1900                  | \$8,500     | 70 years              | 56 years                |
| Pumping Station             | 1900                  | \$300       | 110 years             | N/A                     |
| Water Tower                 | 1900                  | \$150       | 130 years             | N/A                     |
| Incinerator                 | 1920                  | \$7,500     | 80 years              | 64 years                |
| Water Treatment Plant       | 1935                  | \$15,000    | 70 years              | 64 years                |
| Gas Power Plant             | 1955                  | \$4,500     | 80 years              | 64 years                |
| Desalinization Plant        | 1960                  | \$1,500     | 100 years             | N/A                     |
| Nuclear Power Plant         | 1965                  | \$20,000    | 60 years              | 48 years                |
| Recycling Center            | 1970                  | \$5,000     | 75 years              | N/A                     |
| Wind Power Plant            | 1980                  | \$250       | 120 years             | 96 years                |
| Solar Collector             | 1990                  | \$15,000    | 100 years             | 80 years                |
| Waste-to-Energy Incinerator | 2000                  | \$25,000    | 70 years              | 56 years                |
| Microwave Power Plant       | 2020                  | \$30,000    | 80 years              | 64 years                |
| Fusion Power Plant          | 2050                  | \$50,000    | 60 years              | 48 years                |

## NEIGHBOR DEALS

Your fellow mayors will strike deals to supply you with power or water (a “buy” deal), purchase power or water from you (a “sell” deal), dispose of your garbage (an “export” deal), or send you their garbage (an “import” deal). Thus, Neighbor Deals can serve as replacements or supplements to your own existing utility structures.



# POWER

Your city *cannot* function without power. This means you must establish a source of power and convey that power to your zones and structures.

## POWER EFFECTS

A lack of power has different effects on different tiles or structures:

- An undeveloped zone will not develop.
- A developed zone will become abandoned.
- An undeveloped Specialty zone will not develop.
- A water supply structure will shut down.

## CONVEYING POWER

The power distribution system in *SimCity 3000* has been vastly streamlined since *SimCity 2000*.

Power is still generated by Power Plants (or from neighbors, but we'll get to that later) but the way it gets to your zones has changed, obviating the need for expensive and ugly Power Lines to connect your zones to the grid.

## FIVE TILE RADIUS

Power is conveyed not only by Power Lines but also by zones and non-RCI structures. All three absorb power from and convey power to a 5-tile radius, drawing power from nearby Power Lines, zones, and non-RCI structures and conveying energy to nearby unpowered zones and structures.

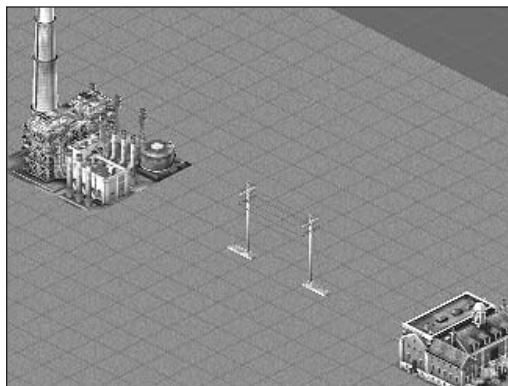


Fig. 17-2. Lines need only be within 5 tiles of a Power Plant, Power Line, or powered zone to convey juice. On the other end, they only need to be within 5 tiles of their destination.



### NOTE

If the idea of power radiation is confusing, think of it this way: when a zone, structure, or Power Line is built, the city engineers build in *underground* lines stretching 5 tiles in all directions. Anything built on those tiles will be powered without a direct, overland connection.



**TIP**

Roads or tiles covered in rubble or ash do not convey power.

An example will illustrate. If you build a Coal Power Plant, you can place a zone of Industrial tiles 4 tiles away and they will be fully powered. You may then leave a gap of 4 tiles and place a block of parks. Next to this block you can leave another 4-tile-wide open space and establish a block of Residential tiles. Everything in this set-up (pictured in Fig. 17-3) will be powered without a single Power Line.



**NOTE**

If you want to create more distance between your Power Plant and your non-Industrial zones, you'll have to construct some length of Power Line to cover the ground between them. Once that is done, however, you can perpetuate the connections with adjacent zones and structures.

The upshot of this system is that it saves you both time and money and helps beautify your city. No longer do you need to build and pay for unsightly Power Lines over Roads and small gaps in land; power can "jump" over both as long as they're within the 5-tile radius.

## POWER TO OUTLYING AREAS

You'll still need to run lines to outlying areas, but that's a minor and sporadic undertaking. Even in these cases, you can use the 5-tile radius to reduce the financial and aesthetic impact of Power Lines: you needn't build them *right up to* an unpowered zone or building. You can, instead, save a few Simoleons by stopping the lines 5 tiles short of your target and the source of the power.

What happens to Power Lines when your city expands and those outlying areas become attached to your city? They disappear.



Fig. 17-3. Power is conveyed in this arrangement without Power Lines thanks to the 5-tile radius.

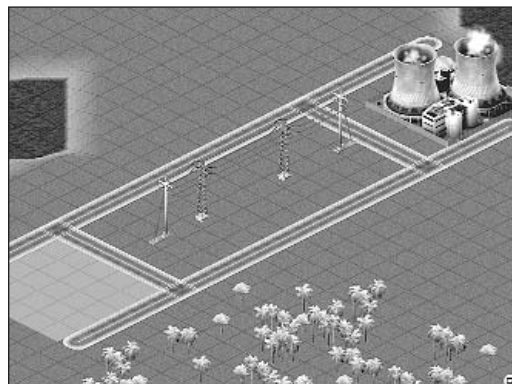


Fig. 17-4. If you zone over these lines, the zone takes over the power conveyance function and the buildings physically replace the lines.



If, after running a string of Power Lines, you build structures or set up zones along their route, the lines will be automatically demolished and the zones or buildings will convey power instead. Power Lines, therefore, exist only if there's no other way to convey electricity and will disappear if a preferred conveyor of power is built over them.

**NOTE**

Building a city free of Power Lines requires some trade-offs. You won't be able to build Farms (which must be away from other development). You'll have to deal with more pollution because your Power Plants, Airports, Seaports, and Business Deal buildings will have to be close to your city. You can eliminate the Power Plants by buying power from a neighbor, but this will require at least a single Power Line built at the edge of your map. This small compromise will help if a line-less city is your goal.

## POWER LINES

Power Lines cost only a minimal amount to build (\$5 per tile). To run lines over water, however, costs an additional \$100 per water tile. Thus, a line over 10 tiles (5 of them over water) will cost \$525.

## POWER PLANTS

Power Plants are your most essential basic structures. Unless you decide to buy your power from a neighbor, you won't be able to start your city without one.

**CROSS REFERENCE**

Buying power is discussed in Chapter 24.

## POWER PLANT COSTS

Your only expense in your power network is the one-time cost of building plants and lines. As such, to evaluate your investments in power, you must consider how much power you're getting for your money. Consult the following table for each plant's cost in Simoleons per megawatt hour (MW-h) per month.

**NOTE**

There is no monthly cost to maintain your power network.



Long term planners, however, might want to take this evaluation a step further. To judge over the long haul how much a plant will cost, it is perhaps more accurate to divide the cost by the amount of power the plant will produce over its life span (average life span  $\times$  monthly capacity). This figure is shown in the Table 17-2.



#### NOTE

This long-term calculation of Power Plant value is not entirely accurate. No plant operates at exactly full capacity for its entire life. Still, this measurement allows for comparison of each type of plant over long periods of time.



#### CROSS REFERENCE

Pollution is discussed in Chapter 14.

In evaluating a plant, you must finally consider its effect on pollution. Some plants (e.g., Solar Collectors) are very expensive to operate but produce little or no pollution—the boost to your city's tax base may more than pay for the additional expense in power.

**Table 17-2. Power Plant Value**

| <i>Plant</i>    | <i>\$ per MW-h/Mo</i> | <i>\$ per Total MW-h</i> | <i>Pollution</i> |
|-----------------|-----------------------|--------------------------|------------------|
| Coal            | \$0.83                | \$0.012                  | Very High        |
| Oil             | \$1.21                | \$0.017                  | High             |
| Gas             | \$1.50                | \$0.019                  | Medium High      |
| Nuclear         | \$1.25                | \$0.021                  | Very Low         |
| Wind            | \$1.25                | \$0.010                  | None             |
| Solar           | \$3.00                | \$0.030                  | None             |
| Waste to Energy | \$5.00                | \$0.071                  | Medium Low       |
| Microwave       | \$2.14                | \$0.027                  | Low              |
| Fusion          | \$1.00                | \$0.017                  | Very Low         |



#### NOTE

The Waste-to-Energy Incinerator is not entirely comparable to the other plants. It serves the additional function of disposing of garbage—its energy production is just a happy side effect.



# POWER STRUCTURES DIRECTORY

Consult this directory for the specifics on each type of structure in your power network. In addition to the basic vital stats for each plant, this directory also includes the buildings' impact on land value, pollution, and aura.

## POWER LINE

- Year Available: 1900
- Size:  $1 \times 1$
- Cost: \$5 per tile (\$100 over water)
- Land Value Effect (Res./Com./Ind.): -15/-15/0
- Air Pollution Effect (Factor/Radius): None
- Water Pollution Effect (Factor/Radius): None
- Aura Effect (Factor/Radius): None

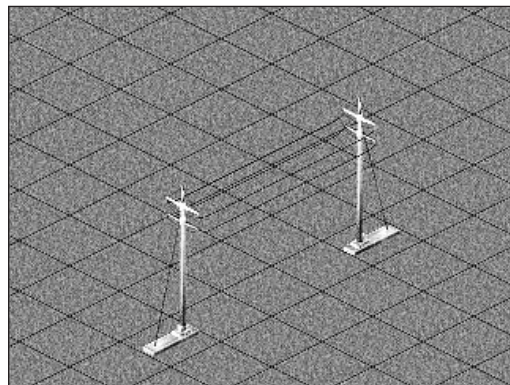


Fig. 17-5. Power Lines

## COAL POWER PLANT

- Year Available: 1900
- Life Span (Decline Age): 60–80 years (48–64 years)
- Size:  $4 \times 4$
- Cost: \$5,000
- Maximum Power Produced: 6,000 MW-h/month
- Land Value Effect (Res./Com./Ind.): -90/-70/-15
- Air Pollution Effect (Factor/Radius): 80,000/25
- Water Pollution Effect (Factor/Radius): 48,000/12
- Aura Effect (Factor/Radius): None
- Jobs Created: 48



Fig. 17-6. Coal Power Plant

## OIL POWER PLANT

- Year Available: 1900
- Life Span (Decline Age): 60–81 years (48–64 years)
- Size:  $4 \times 4$
- Cost: \$8,500
- Maximum Power Produced: 7,000 MW-h/month
- Land Value Effect (Res./Com./Ind.): -70/-55/-18
- Air Pollution Effect (Factor/Radius): 56,000/22
- Water Pollution Effect (Factor/Radius): 28,000/10
- Aura Effect (Factor/Radius): None
- Jobs Created: 48



Fig. 17-7. Oil Power Plant

## GAS POWER PLANT

- Year Available: 1955
- Life Span (Decline Age): 68–92 years (54–74 years)
- Size:  $4 \times 4$
- Cost: \$4,500
- Maximum Power Produced: 3,000 MW-h/month
- Land Value Effect (Res./Com./Ind.): -60/-40/-9
- Air Pollution Effect (Factor/Radius): 32,000/20
- Water Pollution Effect (Factor/Radius): 20,000/7
- Aura Effect (Factor/Radius): None
- Jobs Created: 48



Fig. 17-8. Gas Power Plant

## NUCLEAR POWER PLANT

- Year Available: 1965
- Life Span (Decline Age): 51–69 years (41–55 years)
- Size:  $4 \times 4$
- Cost: \$20,000
- Maximum Power Produced: 16,000 MW-h/month
- Land Value Effect (Res./Com./Ind.): -110/-80/-30



Fig. 17-9. Nuclear Power Plant



- Air Pollution Effect (Factor/Radius): 400/5
- Water Pollution Effect (Factor/Radius): 800/6
- Aura Effect (Factor/Radius): -3/20
- Jobs Created: 48

## WIND POWER PLANT

- Year Available: 1980
- Life Span (Decline Age): 102–138 years (82–110 years)
- Size:  $1 \times 1$
- Cost: \$250
- Maximum Power Produced: 200 MW-h/month
- Land Value Effect (Res./Com./Ind.): -15/-14/-4
- Air Pollution Effect (Factor/Radius): None
- Water Pollution Effect (Factor/Radius): None
- Aura Effect (Factor/Radius): None
- Jobs Created: 0



Fig. 17-10. Wind Power Plant

## SOLAR POWER COLLECTOR

- Year Available: 1990
- Life Span (Decline Age): 85–115 (68–92 years)
- Size:  $4 \times 4$
- Cost: \$15,000
- Maximum Power Produced: 5,000 MW-h/month
- Land Value Effect (Res./Com./Ind.): -35/-14/-4
- Air Pollution Effect (Factor/Radius): None
- Water Pollution Effect (Factor/Radius): None
- Aura Effect (Factor/Radius): None
- Jobs Created: 32



Fig. 17-11. Solar Power Plant

## WASTE-TO-ENERGY INCINERATOR

- Year Available: 2000
- Life Span (Decline Age): 60–81 years (48–64 years)
- Size:  $3 \times 3$
- Cost: \$25,000
- Maximum Power Produced: 5,000 MW-h/month
- Land Value Effect (Res./Com./Ind.): -35/-15/-8
- Air Pollution Effect (Factor/Radius): 22,500/18
- Water Pollution Effect (Factor/Radius): 13,500/10
- Aura Effect (Factor/Radius): None
- Jobs Created: 18

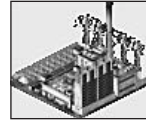


Fig. 17-12. Waste-to-Energy Incinerator

## MICROWAVE POWER PLANT

- Year Available: 2020
- Life Span (Decline Age): 68–92 years (54–74 years)
- Size:  $4 \times 4$
- Cost: \$30,000
- Maximum Power Produced: 14,000 MW-h/month
- Land Value Effect (Res./Com./Ind.): -50/-18/-7
- Air Pollution Effect (Factor/Radius): 800/10
- Water Pollution Effect (Factor/Radius): 1,600/10
- Aura Effect (Factor/Radius): -2/15
- Jobs Created: 48



Fig. 17-13. Microwave Power Plant

## FUSION POWER PLANT

- Year Available: 2050
- Life Span (Decline Age): 51–69 years (41–55 years)
- Size:  $4 \times 4$
- Cost: \$50,000
- Maximum Power Produced: 50,000 MW-h/month
- Land Value Effect (Res./Com./Ind.): -50/-18/-7
- Air Pollution Effect (Factor/Radius): 400/5
- Water Pollution Effect (Factor/Radius): 400/5
- Aura Effect (Factor/Radius): -1/10
- Jobs Created: 48



Fig. 17-14. Fusion Power Plant



## OPERATING AT MORE THAN 100 PERCENT CAPACITY

If your city's thirst for power exceeds your Power Plants' collective capacity, they will continue to supply power up to 110 percent capacity. However, this is not advisable.

The longer a plant operates above capacity, the greater the probability that it will suddenly explode.

There is no risk in running a power plant at more than 100 percent capacity for 18 consecutive months. At this point, however, the probability of explosion begins to rise. If the plant reaches 30 consecutive months of running over capacity, it is guaranteed to explode.

Obviously, it's OK to run a plant above capacity for a while. Sometime before 18 months, however, bring a new plant online or import power from a neighbor.

## WATER

Water is essential to a thriving city but, unlike power, it is not absolutely mandatory. If you don't mind a city with nothing but low density, low and medium value properties, increased fire risk, and constant reminders from your Advisors, then by all means don't create a water system.

If, on the other hand, you want to make your city really work, water is a necessity.

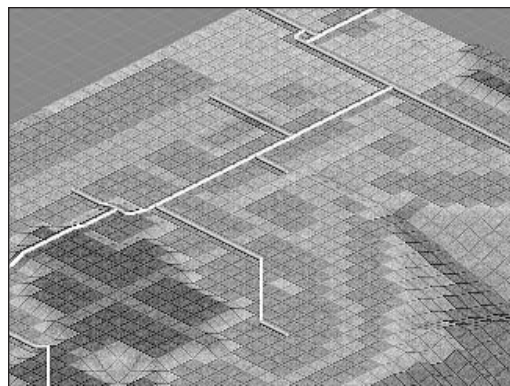


Fig. 17-15. Water is not mandatory, but the lack of it will limit your city.

## WATER EFFECTS

A lack of water has the following effects:

- Land won't develop above low density, medium value.
- Zones above low density, medium land value will be abandoned.
- Undeveloped zones above these densities and values will not develop.
- Specialty zones will not develop.
- Flammability of unwatered tiles remains at maximum.



### CROSS REFERENCE

Abandonment and development are discussed in Chapter 12. Flammability is hashed out in Chapter 19.



## CONVEYING WATER

Water is extracted from fresh and salt water via various structures and conveyed to your city through a network of underground pipes. This system is vastly simplified from *SimCity 2000*.

### SEVEN-TILE RADIUS

Water radiates in a 7-tile radius. Thus, a zone within 7 tiles of a Pumping Station, Water Tower, or Desalinization Plant will itself be watered.

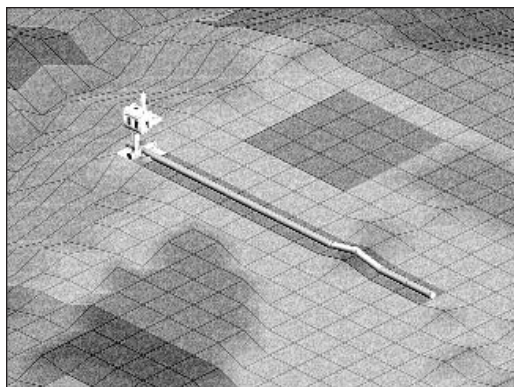


Fig. 17-17. Pipes must be connected at one end to a water structure or a Water Pipe. In this way, they are different from Power Lines.

To move water beyond the immediate vicinity of water supply structures, you'll need to lay pipes. A pipe connected to a water supply source will also radiate water in a 7-tile radius.

Thus, you need only bring Water Pipes to within 7 tiles of the outer edges of your most distant buildings to have complete water coverage.



#### TIP

Precise use of the 7-tile radius can be a real money saver in early gameplay. Don't extend your pipes any farther than necessary to convey water to the farthest tiles.

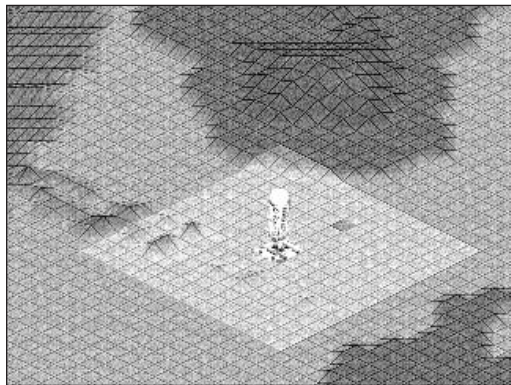


Fig. 17-16. Water radiates in a 7-tile radius from Water Pipes and water structures.

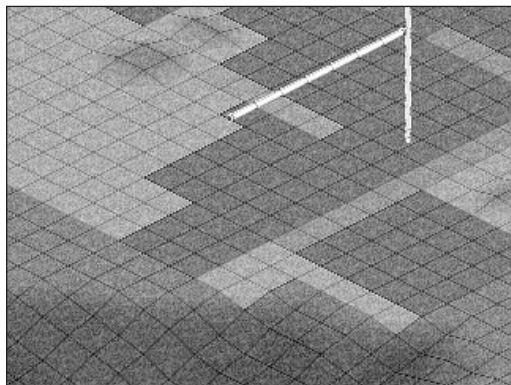


Fig. 17-18. Count back from the edges of your city to effectively and cheaply lay only the most necessary pipes.





## WATER PIPES

Pipes run underground and cost \$5 per tile. There is no additional cost for running them after water but they cannot extend to neighbors across oceans.

## WATER SUPPLY STRUCTURES

Water is extracted from three different sources by three different mechanisms:

- Fresh Water: Pumping Stations
- Ground Water: Water Towers
- Salt Water: Desalinization Plants

## PROXIMITY TO WATER

Pumping Stations and Desalinization Plants must be within 1 tile of water (fresh and salt, respectively) to be fully effective. If they're 2 tiles from water, their capacity will be reduced by 20 percent. Finally, if they are more than 2 tiles away from water, they will be totally useless.

Towers don't need to be near open bodies of water, instead they draw water from the ground.

## WATER POLLUTION

The capacities of all three water supply structures are reduced by local water pollution. The effect is directly proportional to the amount of pollution in the immediate vicinity of the structure.

Water pollution can be reduced by introducing Water Treatment Plants to your city. These structures need to be connected to the water system (via pipes) but do not need to be near water. Construct enough plants to handle your water system's load of sewage—a proportion based on total water demand. Pollution reduction caused by Water Treatment Plants will improve the capacity of plants fouled by local water pollution.



Fig. 17-19. Towers have a lower capacity than Pumping Stations or Desalinization Plants, but they don't need to be near open water.

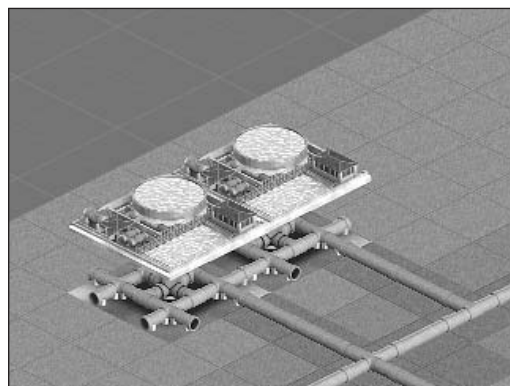


Fig. 17-20. Treatment Plants can go anywhere, so long as they're powered and connected to your network by Water Pipes.



## CROSS REFERENCE

For more information on the effect of water pollution upon supply structures, see Chapter 14.

# WATER STRUCTURES DIRECTORY

Consult this directory for the specifics on each type of structure in your water network. In addition to the basic vital stats for each plant, this directory also includes the structure's impact on land value, pollution, and aura.



## NOTE

Asian and European versions of buildings appear in *SimCity 3000 Unlimited* only.

## WATER PIPE

- Year Available: 1900
- Size: 1 × 1
- Cost: \$5 per tile

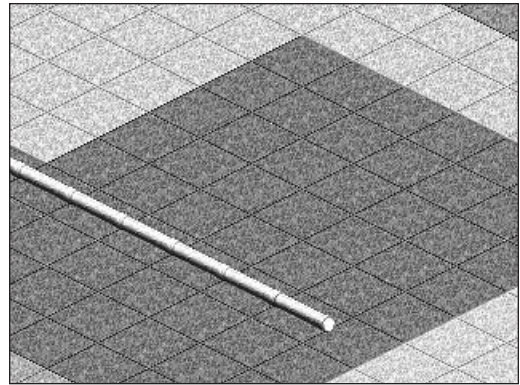


Fig. 17-21. Water Pipe

## PUMPING STATION

- Year Available: 1900
- Life Span: 110
- Size: 1 × 1
- Cost: \$300
- Maximum Water Capacity: 1,500 cubic meters/month
- Land Value Effect (Res./Com./Ind.): -20/-12/-5
- Air Pollution Effect (Factor/Radius): 8/7
- Water Pollution Effect (Factor/Radius): None
- Aura Effect (Factor/Radius): -1/1
- Jobs Created: 0



Fig. 17-22. Pumping Station



## WATER TOWER

- Year Available: 1900
- Life Span: 130
- Size:  $2 \times 2$
- Cost: \$150
- Maximum Water Capacity: 600 cubic meters/month
- Land Value Effect (Res./Com./Ind.): -5/-2/0
- Air Pollution Effect (Factor/Radius): None
- Water Pollution Effect (Factor/Radius): None
- Aura Effect (Factor/Radius): -1/1
- Jobs Created: 0



Fig. 17-23. Water Tower



Fig. 17-24. Asian Water Tower



Fig. 17-25. European Water Tower

## WATER TREATMENT PLANT

- Year Available: 1935
- Life Span (Decline Age): 70 (64)
- Size:  $3 \times 3$
- Cost: \$15,000
- Maximum Water Capacity: 60,000 cubic meters/month
- Land Value Effect (Res./Com./Ind.): -20/-12/-5
- Air Pollution Effect (Factor/Radius): 200/10
- Water Pollution Effect (Factor/Radius): None
- Aura Effect (Factor/Radius): None
- Jobs Created: 16



Fig. 17-26. Water Treatment Plant

## DESALINIZATION PLANT

- Year Available: 1960
- Life Span: 100
- Size: 3 × 3
- Cost: \$1,500
- Maximum Water Capacity: 5,000 cubic meters/month
- Land Value Effect (Res./Com./Ind.): -12/-5/-10
- Air Pollution Effect (Factor/Radius): 450/10
- Water Pollution Effect (Factor/Radius): None
- Aura Effect (Factor/Radius): None
- Jobs Created: 36



Fig. 17-27. Desalinization Plant

## OPERATING AT MORE THAN CAPACITY

Water structures cannot operate at more than their capacity. If your city's demand exceeds your structures' capacities, shortages will occur.

## GARBAGE

Garbage collection is a new feature in *SimCity 3000*. Collecting your Sims' refuse is easy if you take the proper steps, but the consequences are potentially dire if you fail.

## PRODUCING GARBAGE

The basic garbage model is simple. Each building produces a fixed monthly amount of garbage that has to go somewhere. Either you provide this "somewhere" (in the form of Landfills, Incinerators, Waste-to-Energy Incinerators, or export deals), or your Sims will do the only thing available to them: dump their garbage in their own backyards.

## GARBAGE DISTRIBUTION

Your garbage system prioritizes the trash it receives according to its source and age as follows:

1. Neighbor-produced garbage
2. Current output
3. Accumulated output



When you start to amass garbage, therefore, keep in mind that your system must first absorb all imported garbage and current output before it can begin to clear the accumulated garbage. Thus, the more garbage capacity you create, the faster the muck will be hauled away from your precious zones.

## ACCUMULATING GARBAGE

As long as the garbage is picked up and disposed of properly, it does no harm. Once it begins to pile up, however, it's trouble: after a short time, land values and aura levels plummet and structures are abandoned by the block.



### NOTE

Piled trash adds to global pollution and, therefore, reduces global Life Expectancy.



Fig. 17-28. Piles of garbage depress land value and add to pollution until they're collected.

Once trash starts to amass, it will remain until picked up. To eliminate piled trash, you must create somewhere for it to go. Once a repository is established, all trash piles will eventually disappear.



### NOTE

Garbage does not *prevent* development. If a garbage-covered filler tile is chosen for redevelopment, the pile of trash will be automatically shifted to an untrashed filler tile. While the total number of trashed tiles remains unchanged, the arrangement shuffles.

## DISPOSING OF GARBAGE

Trash follows a predefined course, looking for adequate space before moving down the line to the next disposal option. If there is no room at the first option, or you don't have that type of structure, the garbage will be shifted to the next, and so on.

The course that garbage takes through your system is as follows:

1. Waste-to-Energy Incinerators
2. Incinerators
3. Landfill
4. Neighbor Deal

If there's insufficient room at all of these disposal destinations, and you haven't made a Neighbor Deal for your excess garbage, the trash begins to pile up.



#### NOTE

Trash is only exported to a neighbor under a deal if there is absolutely no room in your domestic garbage disposal system. If you don't actually have excess capacity, you'll still pay a minimum every month. Otherwise, you're only paying your neighbor for trash your system can't handle.

## GARBAGE DISPOSAL FACILITIES

### WASTE-TO-ENERGY INCINERATORS

These high-capacity Incinerators can handle 15 percent more trash than a normal Incinerator, and they produce less air pollution in the process. All energy produced by garbage burning is converted into usable power for your city's energy grid.

The pollution and NIMBY effects of these facilities each reduce local land value, but not as severely as a conventional Incinerator.



#### TIP

The Waste-to-Energy Incinerator's split personality explains, but does not entirely justify, this plant's high price tag. Compare the cost of building this facility to those of building a dedicated Power Plant or exporting your filth.

Any trash beyond your Waste-to-Energy Incinerator's capacity goes to your conventional Incinerators.

### INCINERATORS

Incinerators burn garbage rather than accumulating it, but they create staggering amounts of air and water pollution in the process. Nearby land value is reduced both by the pollution and by the inherent undesirability of having an Incinerator in the backyard.



Fig. 17-29. Incinerators are a menace and should only be used if—and only as long as—absolutely necessary.





Incinerators take up less space than Landfills and can be demolished at will. They must, however, be powered.



### TIP

Incinerators should be viewed as a short-term solution. No city can thrive with these filthy facilities in its midst. Construct Incinerators only if you don't wish to further expand your Landfill; use them only until you can afford to send your garbage elsewhere.

Any trash not handled by your Incinerators goes to your Landfills.

## LANDFILLS

Your most basic garbage disposal option is the Landfill. These Specialty zones don't need to be powered or watered, but must meet the following criteria to begin operation:

1. Initial Landfill blocks must be at least  $2 \times 2$ .
2. They must be within 5 tiles of an active Road or Rail or a developed RCI zone.

Once a Landfill is operational, you can expand it as your needs dictate.

Landfills continue to accept garbage until they're either full or have been decommissioned. To decommission a Landfill, remove its access to Roads, Rails, or RCI zones within a 5-tile radius.

A decommissioned Landfill cannot be demolished as long as it contains garbage. You must wait until all the garbage has decayed completely before you can turn the land into anything else.

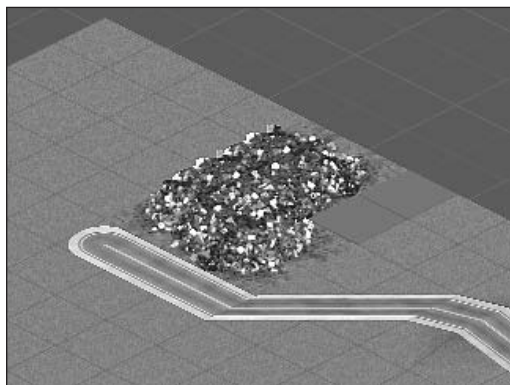


Fig. 17-30. To start, your Landfill zones must be at least  $2 \times 2$  and near a Road, a Rail, or an RCI zone.

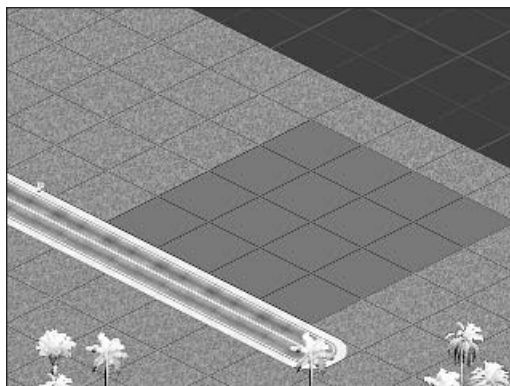


Fig. 17-31. You can't demolish a Landfill zone with trash on it. Only when the tile is flat brown ( $4 \times 4$  shaded area) can you convert the land to other uses.



After a few months, existing garbage in a Landfill starts to decay, reducing the amount of garbage contained in it and increasing your city's available garbage capacity. The rate of decay is slow, however (0.049 percent per month), so you'll only see a Landfill shrink if it's been decommissioned. Once all the trash in a Landfill has decayed, the tiles will return to a flat brown color; only then may you dezone them.



#### NOTE

Utilized Landfill tiles produce both air and water pollution and reduce local land values. Keep them buried at the edge of your map near other undesirable inhabitants.

## RECYCLING

Recycling Centers don't function like other disposal facilities. What they effectively do is lower the garbage output for all inhabitants of your town.

Because your Sims are sorting renewable items out of their garbage, the citywide output of trash is reduced. Lower garbage output means less need for Landfill expansion or less need for more Incinerators.



#### TIP

If you're exporting your garbage, you'll still want adequate Recycling Centers to reduce your output and, therefore, your cost.

One Recycling Center serves 50,000 Sims. Up to this population, a single facility will reduce global garbage output by 45 percent. Once your population exceeds 50,000, this percentage starts to drop until you place a second Recycling Center. This will maintain the recycling reduction until your population reaches 100,000.

## GARBAGE STRUCTURES DIRECTORY

Consult this directory for the specifics on each type of structure in your garbage network. In addition to the basic vital stats for each facility, this directory also includes impact on land value, pollution, and aura.



## LANDFILL

- Year Available: 1900
- Size: Infinite (minimum  $2 \times 2$ )
- Cost: \$50 per tile
- Land Value Effect (Res./Com./Ind.): -20/-12/-5
- Air Pollution Effect (Factor/Radius): 8/7
- Water Pollution Effect (Factor/Radius): None
- Aura Effect (Factor/Radius): -1/1
- Jobs Created: 0

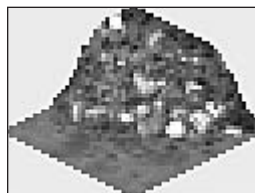


Fig. 17-32. Landfill

## INCINERATOR

- Year Available: 1920
- Life Span: 80
- Size:  $3 \times 3$
- Cost: \$7,500
- Maximum Garbage Capacity: 4,500 tons per month
- Land Value Effect (Res./Com./Ind.): -50/-10/-3
- Air Pollution Effect (Factor/Radius): 36,000/22
- Water Pollution Effect (Factor/Radius): 19,800/12
- Aura Effect (Factor/Radius): None
- Jobs Created: 18



Fig. 17-33. Incinerator

## RECYCLING CENTER

- Year Available: 1970
- Life Span: 75
- Size:  $3 \times 3$
- Cost: \$5,000
- Maximum Population Served: 50,000 Sims
- Land Value Effect (Res./Com./Ind.): -20/-10/-3
- Air Pollution Effect (Factor/Radius): 900/20
- Water Pollution Effect (Factor/Radius): 450/10
- Aura Effect (Factor/Radius): None
- Jobs Created: 18



Fig. 17-34. Recycling Center

## WASTE-TO-ENERGY INCINERATOR

- Year Available: 2000
- Life Span (Decline Age): 60–81 years (48–64 years)
- Size:  $3 \times 3$
- Cost: \$25,000
- Maximum Garbage Capacity: 5,250 tons per month
- Land Value Effect (Res./Com./Ind.): -35/-15/-8
- Air Pollution Effect (Factor/Radius): 22,500/18
- Water Pollution Effect (Factor/Radius): 13,500/10
- Aura Effect (Factor/Radius): None
- Jobs Created: 18



Fig. 17-35. Waste-to-Energy Incinerator

## UTILITY USE TABLES

The numbers in this table are not the actual values used in the simulation. They are presented here to give you an idea of relative values.

**Table 17-3. Utility Use by Zone**

| <i>Zone</i>  | <i>Power Consumption</i> | <i>Water Consumption per Tile</i> | <i>Garbage Generated</i> |
|--------------|--------------------------|-----------------------------------|--------------------------|
| LD/LV Res.   | 1—195                    | 2                                 | 4                        |
| LD/MV Res.   | 1—195                    | 2                                 | 4                        |
| LD/HV Res.   | 1—195                    | 3                                 | 4                        |
| MD/LV Res.   | 1—195                    | 5                                 | 28                       |
| MD/MV Res.   | 1—195                    | 6                                 | 28                       |
| MD/HV Res.   | 1—195                    | 8                                 | 28                       |
| HD/LV Res.   | 1—195                    | 11                                | 60                       |
| HD/MV Res.   | 1—195                    | 13                                | 60                       |
| HD/HV Res.   | 1—195                    | 14                                | 60                       |
| LD/L-MV Com. | 4–210                    | 1                                 | 8                        |
| LD/M-HV Com. | 4–210                    | 2                                 | 8                        |
| MD/L-MV Com. | 4–210                    | 4                                 | 28                       |
| MD/M-HV Com. | 4–210                    | 6                                 | 28                       |
| HD/L-MV Com. | 4–210                    | 8                                 | 60                       |
| HD/M-HV Com. | 4–210                    | 10                                | 60                       |

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| <b>Zone</b>   | <b>Power Consumption</b> | <b>Water Consumption per Tile</b> | <b>Garbage Generated</b> |
|---------------|--------------------------|-----------------------------------|--------------------------|
| LD Dirty Ind. | 5–195                    | 2                                 | 8                        |
| MD Dirty Ind. | 5–195                    | 5                                 | 28                       |
| HD Dirty Ind. | 5–195                    | 11                                | 60                       |
| LD Clean Ind. | 5–195                    | 1                                 | 4                        |
| MD Clean Ind. | 5–195                    | 5                                 | 28                       |
| HD Clean Ind. | 5–195                    | 9                                 | 60                       |
| Agricultural  | 5–45                     | 10                                | 8                        |
| Airport       | 0–20                     | 8                                 | 48                       |
| Seaport       | 0–20                     | 6                                 | 32                       |

**Table 17-4. Utility Use by Structure**

| <b>Structure</b>     | <b>Power Consumption</b> | <b>Water Consumption</b> | <b>Garbage Generated</b> |
|----------------------|--------------------------|--------------------------|--------------------------|
| Bus Station          | 40                       | 12                       | 40                       |
| Casino Row           | 6,000                    | 350                      | 3,600                    |
| City College         | 1,080                    | 90                       | 504                      |
| City Hall            | 1,125                    | 54                       | 144                      |
| County Courthouse    | 900                      | 45                       | 0                        |
| Country Club         | 2,000                    | 125                      | 1,000                    |
| Defense Contractor   | 4,500                    | 50                       | 1,500                    |
| Desalinization Plant | 1,350                    | 9                        | 270                      |
| Fire Station         | 900                      | 54                       | 270                      |
| Fountain             | 0                        | 3                        | 4                        |
| Geyser Park          | 0                        | 50                       | 1,000                    |
| GigaMall             | 5,750                    | 350                      | 3,600                    |
| Hospital             | 1,080                    | 63                       | 216                      |
| Incinerator          | 1,350                    | 135                      | 0                        |
| Jail                 | 1,080                    | 54                       | 576                      |
| Large Park           | 0                        | 144                      | 90                       |
| Library              | 320                      | 20                       | 120                      |
| Lighthouse           | 120                      | 4                        | 160                      |
| Marina               | 0                        | 18                       | 360                      |
| Mayor's House        | 320                      | 36                       | 0                        |

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| <b>Structure</b>            | <b>Power Consumption</b> | <b>Water Consumption</b> | <b>Garbage Generated</b> |
|-----------------------------|--------------------------|--------------------------|--------------------------|
| Maximum Security Prison     | 5,500                    | 300                      | 3,600                    |
| Medical Research Center     | 1,080                    | 81                       | 288                      |
| Military Base               | 15,000                   | 200                      | 4,000                    |
| Museum                      | 900                      | 45                       | 120                      |
| Performing Arts Center      | 480                      | 12                       | 160                      |
| Playground                  | 0                        | 20                       | 40                       |
| Police Station              | 900                      | 45                       | 270                      |
| Pond                        | 0                        | 20                       | 40                       |
| Power Plant, Coal           | 0                        | 160                      | 800                      |
| Power Plant, Fusion         | 0                        | 80                       | 800                      |
| Power Plant, Gas            | 0                        | 128                      | 800                      |
| Power Plant, Microwave      | 0                        | 80                       | 800                      |
| Power Plant, Nuclear        | 0                        | 160                      | 800                      |
| Power Plant, Oil            | 0                        | 160                      | 800                      |
| Power Plant, Solar          | 0                        | 48                       | 0                        |
| Pumping Station             | 50                       | 1                        | 0                        |
| Recycling Center            | 1,350                    | 135                      | 72                       |
| School                      | 900                      | 90                       | 360                      |
| Science Center              | 3,000                    | 225                      | 800                      |
| Small Park                  | 0                        | 144                      | 8                        |
| Spaceport                   | 5,750                    | 75                       | 3,000                    |
| Sports Park                 | 1,280                    | 112                      | 320                      |
| Stadium                     | 5,250                    | 325                      | 3,600                    |
| Stock Exchange              | 2,560                    | 48                       | 640                      |
| Subway Station              | 140                      | 20                       | 60                       |
| Subway-to-Rail Station      | 140                      | 20                       | 60                       |
| Theme Park                  | 7,500                    | 800                      | 14,400                   |
| Toxic Waste Plant           | 4,500                    | 300                      | 1,500                    |
| Train Station               | 320                      | 32                       | 240                      |
| University                  | 20,000                   | 900                      | 8,800                    |
| Waste-to-Energy Incinerator | 0                        | 135                      | 0                        |
| Water Tower                 | 200                      | 4                        | 0                        |
| Water Treatment Plant       | 600                      | 4                        | 120                      |
| Zoo                         | 1,600                    | 160                      | 640                      |



## ORDINANCES

### BACKYARD COMPOSTING

- Department: Environment
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: §0.001 per Sim plus  $5 \times$  the number of Landfill tiles
- Pro: Reduces garbage output
- Con: Costs money

Setting up this extensive training program for your Sims teaches them to convert their organic garbage into helpful fertilizer. All that waste is, thereby, diverted away from your waste disposal network (a 2 percent reduction in garbage output).

## CONSERVATION CORPS

- Department: City Planner
- Year Available: 1915
- Prerequisites: None
- Monthly Cost: §0.0003 per dirty industry tile
- Pro: Increases clean industry; decreases crime, water pollution, and garbage output
- Con: Costs money

The Conservation Corps works to beautify the city by picking up trash. It's funded through a monthly fee paid by your town's polluters. The probability of clean industry is raised by 4 percent while global crime is reduced by 8 percent. It also reduces water pollution and garbage output by 7 percent.

## INDUSTRIAL WASTE DISPOSAL TAX

- Department: Environment
- Year Available: 1950
- Prerequisites: None
- Monthly Income: \$0.0005 per Commercial and Industrial tile
- Pro: Generates Income, reduces garbage
- Con: Lowers Commercial and Industrial demand

This garbage tax is applied to all Industrial and Commercial inhabitants of your city, and the resulting revenue appears as Ordinance Income in your Budget window. It also results in a reduction in garbage by 5 percent. Unfortunately, it also inhibits demand for both Commercial and Industrial zones by 2 percent and 8.5 percent, respectively.

## MANDATORY WATER METERS

- Department: Utilities
- Year Available: 1930
- Prerequisites: None
- Monthly Cost: \$0.0001 per building
- Pro: Reduces water consumption
- Con: Costs money

This mandatory program requires water meters on all buildings, thus reducing citywide water consumption by 5 percent.

## PAPER REDUCTION ACT

- Department: Environment
- Year Available: 1960
- Prerequisites: None
- Monthly Cost: \$0.001 per Sim
- Pro: Reduces garbage output
- Con: Costs money

This clever Ordinance reduces garbage output through the sheer force of bureaucracy. Businesses curb their paper usage enough to reduce garbage output by 2 percent.





## POWER CONSERVATION

- Department: Utilities
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim plus  $5 \times$  the number of Power Plants
- Pro: Reduces power consumption
- Con: Costs money, lowers Industrial demand

This measure expends money to educate the populace about power conservation and, consequently, lowers citywide power consumption by 10 percent. Unfortunately, quarrelsome Industrial inhabitants hate this intrusion of government; their reaction reduces Industrial demand by 3 percent (of whatever current usage may be).

## STAIRWAY LIGHTING

- Department: Utilities
- Year Available: 1930
- Prerequisites: None
- Monthly Cost: \$0.0001 per building
- Pro: Reduces power consumption
- Con: Costs money

This mandatory program requires auto-shutoff mechanisms in stairwells, thus reducing citywide power consumption by 5 percent.

## TIRE RECYCLING

- Department: Environment
- Year Available: 1940
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim
- Pro: Reduces garbage output and the cost of new Road tiles
- Con: Costs money

In the spirit of turning the old into the new, this Ordinance authorizes the use of discarded tires in the manufacture of asphalt for your roads. Recycling the tires knocks 3 percent off your garbage output and 10 percent off the cost of building On-Ramps and Road tiles.

## TRASH PRESORT

- Department: Environment
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: \$0.0015 per Sim
- Pro: Lowers garbage output
- Con: Costs money

Your Sims are willing to go to a little trouble to sort out their recyclables. The cost to you is a chunk of your treasury in exchange for a 3 percent reduction in garbage output.



# TRANSPORTATION

Getting from here to there is as essential to your Sims as water and power and, we presume, even food. If Sims can't take care of their business (getting to work or shopping), they'll pack up and find a more hospitable city to call home. Building and maintaining a smooth, pervasive, and cost-effective transportation network is a sure way to Sim bliss; if your Sims don't have to think about traffic, they'll have time for all sorts of pursuits benefiting both them and you.

This chapter will cover all the pieces in your transportation puzzle and explain how the simulation determines if the network is adequate.

The mechanics of it all can get complex, but just keep in mind this simple principle: lots of redundant routes and modes of transportation and not *too much* distance between zone types. If you get this, you shouldn't have any trouble.

## TRANSPORTATION MODES

There are five basic modes of transportation in *Sim City 3000*:

- Road
- Rail
- Subway
- Bus
- Highway



### NOTE

If you go by what's in the menus in the game, you'd think that you can only build "On-Ramps." In fact, you can and must build both On-Ramps and Off-Ramps. It's more accurate, then, to call them, collectively, "Ramps." When we're referring to a specific type, therefore, we will specify whether it's an On-Ramp or an Off-Ramp we want.

**Table 18-1. Transportation Costs**

| <i>Transp. Element</i> | <i>Cost Per Tile</i> | <i>Station Cost</i> | <i>Monthly Maint. Cost Per tile</i> | <i>Station Monthly Maint. Cost</i> | <i>Neighbor Connection Cost</i> |
|------------------------|----------------------|---------------------|-------------------------------------|------------------------------------|---------------------------------|
| Road                   | \$10                 | N/A                 | \$0.10                              | N/A                                | \$2,500                         |
| Rail                   | \$10                 | \$250               | \$0.10                              | \$10                               | \$2,500                         |
| Subway                 | \$150                | \$500               | \$0.20                              | \$10                               | \$4,000                         |
| Bus                    | N/A                  | \$150               | N/A                                 | \$5                                | N/A                             |
| Highway                | \$150                | \$75 (Ramp)         | \$0.30                              | \$0.30                             | \$5,000                         |

These five modes can be grouped into two transportation types: auto transportation and mass transit.



### NOTE

Many of the decisions you have to make in creating transportation involve a very difficult trade off. Every tile used for transportation is one less tile that can be zoned to produce tax revenue. It is tempting to build fewer Roads to preserve good land, but don't go overboard. Too few and too narrow thoroughfares will get you nothing but abandoned zones that produce no Income.

## AUTO TRANSPORTATION

Auto transportation covers both Roads and Highways; basically, anything made of blacktop.

### ROADS

Roads are your most fundamental transit element. Sims love to use their cars above all else; when given a choice, they'll always choose to jump in their cars and hit the Road. You'll need an elaborate Road network to keep your Sims happy.



Fig. 18-1. Roads and Highways comprise your Road network.



### TIP

Keep Roads as simple as possible. Curves and Intersections slow down traffic and can contribute to trip failure. Also, make sure, if at all possible, that each stretch of Road touches all three kinds of zones.



Roads should be plentiful enough to prevent bottlenecks. You can also expand Road width to form Avenues (see following section on Avenues) that can carry more traffic. A small to moderate amount of air pollution is contributed by your Road network.



### TESTER TIP!

A power user does not build Roads in grids. The fewer Intersections to distract your Sims the better. It's entirely possible for your Sim to drive in circles around the same block and never complete a trip, therefore increasing the chance for abandonment.

Straight Roads with few Intersections connected to every zone type give Sims the best opportunity to complete trips. Access to Neighbor Connections is also best because all Sims who drive off the map automatically complete their trip.

—Joe Bird, *Maxis*

## HIGHWAYS

These large-capacity, high-speed transportation elements become available in 1940. Highways carry your Sims hither and yon much more efficiently than Roads, but they produce even more air pollution.

You must build On-Ramps and Off-Ramps from intersecting Roads to allow your Sims access to and from their Highways. Ramps must be on both sides of the Highway to offer access in both directions.



### TIP

Put at least one tile of each kind of zone near Off-Ramps. This allows Sims to find their destination zone as soon as they exit Highways. This goes for Subways and Train Stations too.

Highways take up considerable real estate (2 tiles per segment) and you'll probably have to do some demolition through your existing city to create a useful route.



Fig. 18-2. Watch a busy Intersection for a while and you'll see how Intersections affect the flow of traffic.

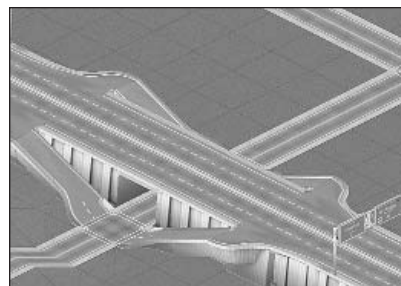


Fig. 18-3. Highways are very efficient but expensive and complicated to build. They must intersect with your city's Roads and include four Ramps.

## BUILDING COSTS

Roads, Highways, and Ramps cost a fixed fee per tile. If minor landscaping is necessary to build the tile, the cost of it is added to the expense.

If you pass the Tire Recycling Ordinance, the cost of Road and Highway tiles and Ramps decreases by 10 percent.

## BUDGET

Your Road budget is different from all of your other budgets. Your Road and Highway maintenance workers don't go on strike; they just decrease their efforts to reflect what you're paying them. When your Road budget is at 100 percent, all damage to Roads is automatically repaired before you even see it.

If you reduce the Road budget by even 1 percent, potholes will start to appear in Road tiles. The more you reduce the budget, the faster and more frequently potholes will form.



Fig. 18-4. Decreasing the Road budget means the constant maintenance bought by 100 percent funding will become more lax. Potholes form in proportion to the degree of underfunding.



### NOTE

**If Roads are damaged, restoring the budget to 100 percent merely stops new potholes from forming. No repairs occur until you go above 100 percent.**

To repair the damage, you can either demolish and rebuild the Roads or restore the budget to over 100 percent and allow your crews to make the repairs at no additional cost. Doing it yourself, you should note, is an expensive and tedious undertaking. Better to let the crews do it automatically by raising funding over 100 percent; the higher you go, the faster repairs will be done.

## MASS TRANSIT

Mass transit, if well implemented, will get your Sims to leave their cars to get where they're going. All modes of mass transit are more efficient than Road traffic, less prone to congestion, and largely nonpolluting. They all, however, require stations, structures that allow Sims to board; your Sims can't just start traveling from anywhere they like.



### TIP

**Once Sims switch onto mass transit, they will not resume traveling on Roads (since they, presumably, left their cars when they boarded). Thus, their destinations must be within one tile of the stations; put one tile of each zone type next to every station.**



## RAIL

The first mode of mass transit available to you is the Railroad. This very efficient and inexpensive conveyance is a good alternative to Roads but obligates you to place Stations in nearly all of your zones because trains can only be boarded and exited at Train Stations. The cost of Train Stations make Rail travel, in the end, significantly more expensive than Roads. Train Stations must be within one tile of a Rail.



Fig. 18-5. Traveling by Rail is an efficient means of mass transit, but its stations can be expensive in those lean early years.

## SUBWAY

The beauty of Subway Tunnels is that you can build them anywhere in your city without large-scale demolition, and they don't consume otherwise taxable real estate. The 1-tile Subway Stations are barely noticeable on the surface. Plus, their efficiency is exactly the same as Rail tiles. What's the catch? They cost a fortune: more to build, more to build stations, and more to maintain. It's up to you to decide if the underground benefit (less taxable land lost to nontaxable transportation structures) is worth the extra expense.

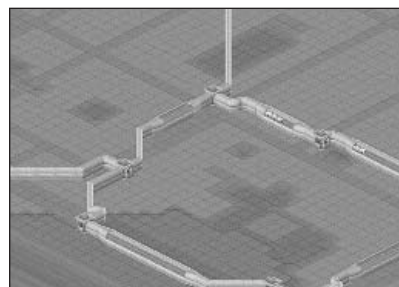


Fig. 18-6. Subways are the ultimate in mass transit but are very, very expensive.

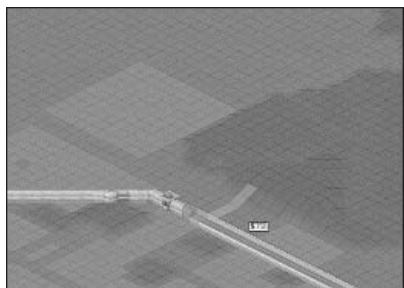


Fig. 18-7. If terrain is too steep, you won't be able to build Subway Tunnels. When in doubt, construct your Tunnels under existing Roads.

Subways can only be boarded and exited at Subway Stations. Subway Stations must be within one tile of tracks.

Note that Subway Tunnels can be destroyed in Earthquakes (and, in *SimCity 3000 Unlimited* only, by Space Junk), so be sure to check underground after a tremor.

## BUS

Bus transportation isn't available until 1920, but it's a good first mass transit system for mayors not wishing to give up land to Railroads or spend the money for Subways.



Buses can only be boarded at Bus Stops along Roads but can be exited *anywhere*. For this reason, you needn't put any Bus Stops in your Industrial zones—Sims traveling *from* Industrial zones don't take Buses. Scatter Bus Stops liberally around Residential and Commercial zones. They must be within one tile of a Road or Ramp. Bus Stops on Highways won't work.



**TIP**

Putting a Bus Stop within one tile of a Subway or Train Station, enables Sims to transfer directly to and from those modes of transportation. For this purpose only, you should consider putting Bus Stops in Industrial zones.

Though Buses travel on your Roads and Highways, they don't contribute to traffic congestion or pollution. They are, however, affected by traffic tie-ups and damaged Roads. Bus networks are very efficient but are at the mercy of your car-commuting populace.

## MASS TRANSIT INCOME

All of your mass transit systems produce Income from ridership. The fares are shown below:

**Table 18-2. Transit Income per Rider**

| <i>Mode</i> | <i>Fare</i> |
|-------------|-------------|
| Rail        | \$0.01      |
| Subway      | \$0.01      |
| Bus         | \$0.005     |

If you pass the Subsidized Mass Transit Ordinance, these fares will be reduced by 35 percent.

## TRANSIT STRIKES

If you reduce your Mass Transit Department budget to 70 percent or below, the probability of a strike begins. The longer you underfund, the greater the probability. If a strike occurs, all mass transit ceases to operate for the duration of the strike.



Fig. 18-8. Pepper your Residential and Commercial zones with Bus Stops; they're better than Roads and are way less expensive than other modes of public transport. The more Bus Stops you have, the fewer cars you'll have on the Road.

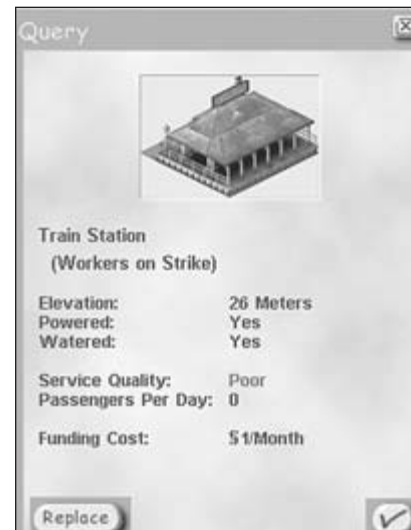


Fig. 18-9. Unlike other strikes, transit strikes cause a total shutdown. None of your mass transit systems will operate as long as the strike is in effect.

**CROSS REFERENCE**

Details on strikes are available in Chapter 9.

# SPECIAL TRANSPORTATION SITUATIONS

## AVENUES

Roads laid down side-by-side automatically create Avenues—multi-lane, tree-lined stretches of Road as many lanes wide as you wish. It's often prudent to plan ahead and build wide Roads right from the start to accommodate future traffic on what will be main routes between your zones.

**TIP**

**In the end, it's really more economical and efficient to provide single Roads with Bus Stops than Avenues. With double the expense and double the pollution, Avenues might not be worth the trouble.**



Fig. 18-10. Avenues are lovely to look at and do improve traffic if you use them correctly.

The caveats with Avenues is that they produce more pollution and take up more land than a simple two-lane Road and cost more to build and maintain than a single Road. It, however, could be worth surrendering a bit of valuable land and public money, however, to provide your Sims with smooth-flowing traffic.

## RAMPS

Ramps are the only way your Sims can get on or off Highways. There are two cases where you should place these access Ramps.

## HIGHWAY-ROAD INTERSECTIONS

Point your Ramp Tool at the empty tile in the angle where the Highway and Road meet. If the Drop Shadow turns blue, it means conditions are correct. A Ramp will be built if:

- There are 3 empty tiles (parallel to the Highway).

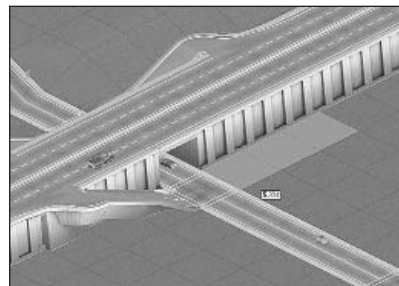


Fig. 18-11. When a Highway and a Road intersect, create Ramps to allow transfer from one to the other. Special conditions, however, make Ramp building tricky.

- Tiles are on level ground.
- The Road tiles are at the same elevation as the Highway tiles.

Each of the four possible Ramps (two On-Ramps and two Off-Ramps) at a given Road-Highway Intersection must be built independently. Build four Ramps at every Intersection or the Highway system won't function properly.

## HIGHWAY-TO-HIGHWAY INTERSECTIONS

Where two Highways meet, they automatically create an overpass but there's no way to transfer from one Highway to the other. To create an interchange between these two Highways, build a Ramp.

Point the Ramp Tool into any of the four angles created by the Intersection. If the Drop Shadow turns blue and becomes L-shaped, it means conditions are correct. A Ramp will be built if:

- There are three (L-shaped) empty tiles (parallel to the Highway).
- The tiles are on level ground.
- The tiles are at the same elevation as the Highway tiles.

Each of the four possible Ramps at a given Highway-to-Highway Intersection must be built independently. Build all four or the Highway system won't function properly.

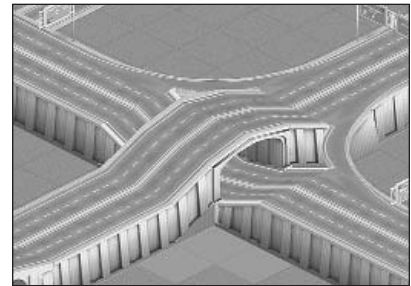


Fig. 18-12. The shape of the Ramps for Highway-to-Highway Intersection connections are a bit different than Highway-to-Road.

## TUNNELS

Roads and Rails can't climb steep slopes. They can, however, tunnel through the slopes in some circumstances.



### NOTE

**Highways can't go through Tunnels.**

This undertaking is neither cheap nor easy to accomplish. In fact, the City Engineers can be downright ornery when it comes to digging Tunnels. You'd think they'd relish the chance to use dynamite.

**TIP**

Always save before trying to build a Tunnel. Errors can be very costly.

Here's how it works. Run a Road 2 tiles up a slope. If conditions are ripe for a Tunnel, the City Engineers will quote you a price (dependent on projected length) for building the conveyance. You may either accept their assessment, giving them permission to build and bill, or reject it and find another way to the other side.



Fig. 18-13. Tunnels can go where Roads and Rails can't.

**NOTE**

Tunnels cannot be built to neighbors.

Finding a spot with the proper conditions can, however, be difficult:

- The slope must be the steepest possible.
- The slope can't be at the base of a hill.

**NOTE**

If either of these conditions is absent, the impulsive City Engineers may, instead of suggesting a Tunnel, try to level the terrain to make the Road work without one. Often, after the Road is built and the terrain changed—at great expense—you'll be unable to build it the rest of the way over the hill. The Engineers lack, shall we say, foresight.

## STEEPEST POSSIBLE SLOPE

There is no way to tell in advance if a slope is sufficiently steep until you've built a few Tunnels and gained an eye for it.

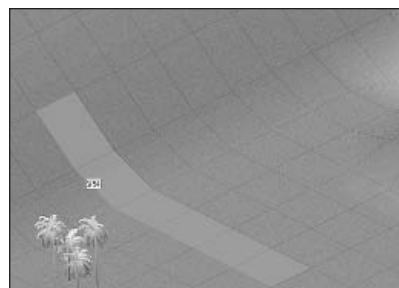


Fig. 18-14. This slope is steep enough.

## THE SECOND TILE RULE

The second condition is easier to spot. The ultra-steep slope must be the *second* tile from the base of the hill. Releasing the mouse button on the first tile causes the hill to be lowered so the Road can continue. Always use the *second tile*.

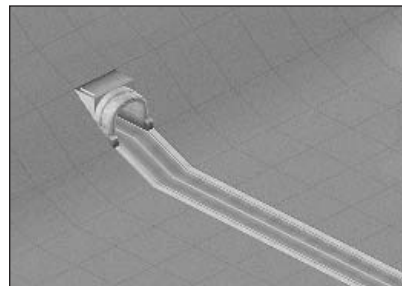


Fig. 18-15. When you want to build a Tunnel, always run the Road's Drop Shadow up 2 tiles from the flat ground.

## TUNNEL EXITS

Plan your Tunnels carefully. Just because one end of a Tunnel can be built, doesn't mean you'll be able to build a Road down the other side of the hill. What you spend to build the Tunnel could be only the beginning of your investment.

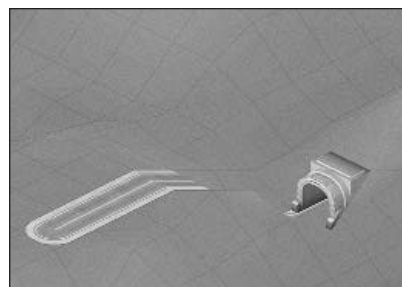


Fig. 18-16. If the other end of the Tunnel is inaccessible, that won't stop the Engineers from building anyway. Always plan ahead and save before you try to build a Tunnel.

## BRIDGES

You can run Road, Rail, and Highways across rivers and large lakes but you'll need to build Bridges. Like Tunnels, Bridges cost lots of Simoleons and are bound by several structural rules.

Generally, you build a Bridge by dragging your Road, Rail, or Highway Tool across a body of water. When you let go of the mouse button, the City Engineers will ask if you want to build a Bridge. If you say "yes," the Bridge will be built and the appropriate amount (depending on the length, type, and the landscaping required to build the Bridge) will be deducted from your treasury.

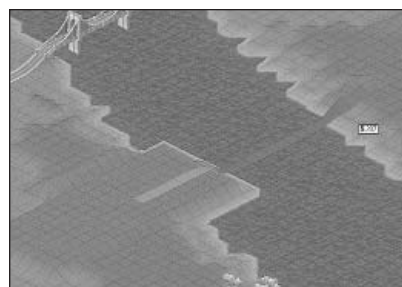


Fig. 18-17. When building a Bridge, the Road's Drop Shadow will turn red until you get far enough over the water and into the other shore. If it never turns back to blue, it means the route cannot be built.



## WHERE TO START

To build a Bridge, your Road or Rail tiles must be at least 5 tiles from the shoreline. Highways need only be 4 tiles from the water. As you drag your Tools across the water, the Drop Shadow remains red until you've dragged across at least the same number of tiles on the opposite shore. When the Drop Shadow turns blue again, you can release the button to tell the City Engineers that you're ready to see the price tag.

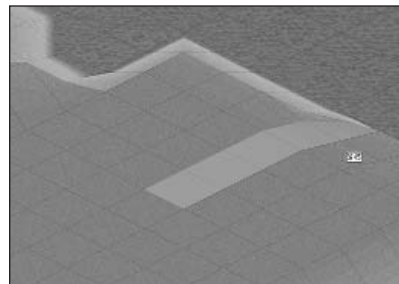


Fig. 18-18. Start Bridges at least 5 tiles back from the shoreline (4 for Highways).

## SHORELINE CONDITIONS

Your shorelines play a prominent role in whether a Bridge can be built or not. Your shorelines must be:

- In a straight line
- Of roughly equal altitude
- Within 3 slope tiles from the water level
- Free of any structures that could be damaged by landscaping and construction

If all of these conditions are met, you'll receive the option to build a Bridge.

If you agree, the type of Bridge built depends on the width of the waterway and the type of transportation element you are using.

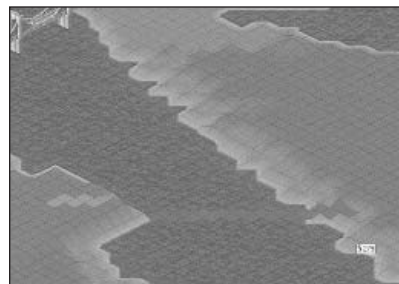


Fig. 18-19. Bridges won't build on a diagonal tile.



### NOTE

If you drag a Road, Rail, or Highway over a small dollop of Surface Water, you'll be given the option to build a Bridge over it. If you agree, however, the Engineers will refuse to build such a paltry structure. If you must build a Bridge there, use the Create Surface Water Tool to turn a puddle into at least a respectable stream.

## TRANSPORTATION AND DEMAND CAP RELIEF

Connections to neighbors provide various levels of Demand Cap Relief to Commercial and/or Industrial populations.



## CROSS REFERENCE

For details on Demand Cap Relief, see Chapter 11.

Not all connections serve *both* types of zones, so you'll need to make the connections that are appropriate to your purposes.

**Table 18-3. Demand Cap Relief**

| <i>Transp. Element</i> | <i>Commercial Demand Cap Relief</i> | <i>Industrial Demand Cap Relief</i> |
|------------------------|-------------------------------------|-------------------------------------|
| Road                   | 12,000                              | 12,000                              |
| Rail                   | 0                                   | 25,000                              |
| Subway                 | 25,000                              | 0                                   |
| Highway                | 20,000                              | 14,000                              |

# NEIGHBOR CONNECTIONS

You can use the four basic transportation elements to connect to your overland neighbors. Road, Rail, and Highway enable garbage import/export deals. The costs for each type of element are shown in Table 18-1.

# TRANSPORTATION AND BUILDING EFFECTS

## POLLUTION

Sims love their cars, but cars produce air pollution. Your Roads and Highways are not a major source of air pollution, but they shouldn't be ignored.

Roads are, for most mayors, inevitable. What, then, can you do to reduce their effect on the air your Sims breathe?

Your best defense against traffic pollution is to reduce traffic. The actual amount of pollution a Road or Highway "produces" is proportional to the amount of traffic running across it. The obvious way to solve this problem is to build multiple routes so that your city's traffic pollution is distributed more evenly among your blocks; it won't reduce your global pollution, but it will minimize the local land value reductions caused by concentrated pollution. This method is, however, neither the cheapest nor the most efficient solution.



Fig. 18-20. High traffic Roads produce a worrisome amount of air pollution.



**TESTER TIP!**

Actually, if every block has at least one tile of each zone type, traffic, as well as the pollution caused by it, will be drastically reduced, because Sims will only have to travel a short distance to complete trips.

Most users won't even notice the single Industrial or Commercial tile hidden among the rest of the buildings in the block. If this is done right, this trick can even make the city look more realistic while not affecting land value too much. This solution is much cheaper than building more Roads.

—Joe Bird, *Maxis*



Fig. 18-21. Blocks of mixed zone types help complete trips. Drop a single tile of Industrial and Commercial in most Residential blocks to reduce traffic and increase overall trip success.

18

TRANSPORTATION

The second, most effective, thing you can do is to give your Sims an efficient and extensive mass transit network. Because Rail systems, Subways, and Buses are electrically powered, they don't contribute at all to air pollution. Read on to find out how to get your Sims out of their filthy cars and into your cleaner modes of transportation.

**NOTE**

While Trains, Subways, and Buses don't produce air and water pollution, their stations do. Overall, they're cleaner and easier to control than Roads.

## LAND VALUE

Everyone likes being close to transportation but not everyone likes transportation being close to them. As such, transportation elements have Land Value Effects like any other structure.

Generally, Commercial and Industrial zones get a positive boost from proximity to transportation elements and structures. Residential Sims don't want noisy, dirty things in their backyards, but seem happy to have a Road nearby.

You should consider these Land Value Effects when placing transportation elements.

## CRIME

Transportation elements themselves don't produce any crime, but their stations do.

# TRANSPORTATION STRUCTURE DIRECTORY

## ROAD

- Year Available: 1900
- Size:  $1 \times 1$
- Cost: \$10 per tile
- Maintenance (monthly): \$0.02
- Neighbor Connection Cost: \$2,500
- Land Value Effect (Res./Com./Ind.): 1/3/2

## RAIL

- Year Available: 1900
- Size:  $1 \times 1$
- Cost: \$10 per tile
- Maintenance (monthly): \$0.01
- Neighbor Connection Cost: \$2,500
- Land Value Effect (Res./Com./Ind.): -4/0/0

## SUBWAY TUNNEL

- Year Available: 1910
- Size:  $1 \times 1$
- Cost: \$150 per tile
- Maintenance (monthly): \$0.20
- Neighbor Connection Cost: \$4,000
- Land Value Effect (Res./Com./Ind.): None

## HIGHWAY

- Year Available: 1940
- Size:  $4 \times 4$
- Cost: \$150 per tile
- Maintenance (monthly): \$0.30
- Neighbor Connection Cost: \$5,000
- Land Value Effect (Res./Com./Ind.): -8/4/4



## RAMP

- Year Available: 1940
- Size:  $3 \times 1$
- Cost: \$75 per Ramp
- Maintenance (monthly): \$0.30

## BUS STOP

- Year Available: 1920
- Size:  $1 \times 1$
- Cost: \$150
- Maintenance (monthly): \$5
- Land Value Effect (Res./Com./Ind.): -10/12/5
- Air Pollution Effect (Effect/Radius): 90/10
- Water Pollution Effect (Effect/Radius): 80/5
- Crime Effect (Effect/Radius): 15/3
- Jobs Created: 2

## TRAIN STATION

- Year Available: 1900
- Size:  $2 \times 2$
- Cost: \$250
- Maintenance (monthly): \$10
- Land Value Effect (Res./Com./Ind.): -15/10/10
- Air Pollution Effect (Effect/Radius): 400/10
- Water Pollution Effect (Effect/Radius): 360/5
- Crime Effect (Effect/Radius): 20/3
- Jobs Created: 4



Fig. 18-22. Bus Stop



Fig. 18-23. Train Station

## SUBWAY STATION

- Year Available: 1910
- Size: 1 × 1
- Cost: \$4,000
- Maintenance (monthly): \$10
- Land Value Effect (Res./Com./Ind.): -15/10/10
- Air Pollution Effect (Effect/Radius): 60/10
- Water Pollution Effect (Effect/Radius): 60/5
- Crime Effect (Effect/Radius): 25/3
- Jobs Created: 2

## SUBWAY-TO-RAIL CONNECTION

- Year Available: 1910
- Size: 1 × 1
- Cost: \$500
- Maintenance (monthly): \$10
- Land Value Effect (Res./Com./Ind.): -15/10/10
- Air Pollution Effect (Effect/Radius): 60/10
- Water Pollution Effect (Effect/Radius): 60/5
- Crime Effect (Effect/Radius): 25/3
- Jobs Created: 2

## TRIP THEORY

Now that we've got all the nitty-gritty details out of the way, we can get to the true heart of the matter: trips. All transportation planning and building is designed around allowing your Sims to complete trips. What that means and how it happens is an extremely complicated process. Fortunately, it can easily be boiled down into useful city-building strategy.

## WHAT IS A TRIP?

A "trip" is a journey a Sim takes from one zone to another. It can be long or short. It can be to work, to home, or to shop.



Fig. 18-24. Subway Station



Fig. 18-25. Subway-to-Rail Connection



All that matters is that your Sims make it to their destinations. If they can't, they'll give up on your burg and its rinky-dink transportation system and bolt town, leaving their homes abandoned.

This is what's happening on a symbolic level: your Sims need to be able to get where they're going. If they can't, something's wrong. Imagine a city full of folks bustling about their lives but unable to get to work or to the supermarket; all they can do is turn around and go home in defeat. You'd leave too if that were your town!

## TRIP GENERATION

On a more mechanical level, it works like this: Every month, the simulator randomly selects 20 percent of your city's RCI buildings to generate a trip.

## WHERE ARE WE GOING?

Next, the simulator decides to what zone the trip is headed. The simulator's decision depends on what kind of zone the trip starts:

**Table 18-3. Trip Destinations by Zone Type**

| <i>From</i> | <i>To</i>                                       |
|-------------|---|
| Residential | 90% Industrial or Commercial, 10% Residential   |
| Commercial  | 70% Residential, 20% Industrial, 10% Commercial |
| Industrial  | 50% Residential, 20% Commercial, 30% Industrial |



### NOTE

**Trips can be satisfied if the Sim finds a connection to a neighbor city en route. This serves as an incentive for numerous Neighbor Connections.**

Residential trips will largely be made to Commercial and Industrial zones. The proportion of trips to each zone is, however, dictated by the city's overall ratio of Commercial to Industrial. If your city has 15,000 Industrial and 10,000 Commercial tiles, Residential trips (to Commercial or Industrial zones) will be 75 percent to Industrial and 25 percent to Commercial.



**Fig. 18-26.** Trips are the reason your Industrial zones can't be *too* far away from your Residential zones. If they're too distant, you are spared their polluting effects, but your Sims won't be able to get to work.



## NOTE

Sims tend to favor larger, higher density destination zones over smaller, lighter ones. In other words, it's possible that a Sim will bypass a low-density zone of its desired destination type to find a larger one.

Once the destination zone type has been determined, it's time to find transportation.

# FINDING TRANSPORTATION

When Sims leave their houses to seek a chosen destination zone, they have to find a way to get there. This means they must be able to get to a Road, Train Station, or Subway Station. How far they travel to find one of these depends on where they begin:

**Table 18-4. Distance to Transportation**

| <i>Starting Zone</i> | <i>Maximum Distance to Transportation (tiles)</i> | <i>Maximum Distance to Transportation (tiles) with Shuttle Ordinance</i> |
|----------------------|---|--|
| Residential          | 4   | 5  |
| Commercial           | 3   | 4  |
| Industrial           | 5   | 6  |

The distance a Sim will travel to find transportation can be increased if you pass the Shuttle Service Ordinance. This law, available after you have set up some kind of mass transit network (e.g., a Bus Stop, two Subway Stations, etc.), increases each zone type's maximum distance to transportation by 1.



## NOTE

**Municipal (Police Stations, Fire Stations, Schools, Colleges, Hospitals, Libraries, and Museums), utility (except Landfill), recreational, Reward, and Landmark structures don't need to be connected to transportation.**

If Sims don't find transportation within their maximum distance to transportation, the trip fails instantly and the Sims immediately abandon their structures. This can only happen if you've moved a transportation element or repealed the Shuttle Ordinance; if transportation hadn't been in range all along, the Sim's structure wouldn't have developed in the first place.

OK, so the Sim has found transportation, what now?



Fig. 18-27. Once a structure is built, it must always be the requisite number of tiles from a transportation source. All of the buildings in this Residential block are within 4 tiles of the Road. If you move the Road away 1 tile, the back row of the block will be abandoned.



## TRIP STEPS

From this point, Sims have a budget for their trips. They must find their destinations in 255 steps. Sounds like a lot, right? Not exactly.

What counts as a “step” in trip calculation depends on myriad factors.

## TRANSPORTATION TYPE

The kind of transportation a Sim uses dictates how many steps each tile represents. The more efficient a transportation mode is, the fewer steps it represents per tile.

**Table 18-5. Step Costs by Transportation Mode**

| <i>Mode</i>       | <i>Steps Per Tile</i> |
|-------------------|-----------------------|
| Road              | 4                     |
| Bus (via Road)    | 3                     |
| Bus (via Highway) | 1                     |
| Highway           | 2                     |
| Rail              | 2                     |
| Subway            | 1                     |

The modes of transportation Sims take depends on what kind of zone they started from:

- Residential: All modes
- Commercial: All modes
- Industrial: Road, Rail, and Highway only



### TIP

**Don't bother putting Bus Stops in your Industrial zones. There are two reasons for this. Trips by Bus can disembark anywhere without a Bus Stop, and trips starting in Industrial zones won't board Buses or Subways. You will, however have to put Subway Stations near Industrial zones because your Residential trips must be able to disembark.**

In the simplest possible trip, a Sim will locate a Road and drive on it at 4 steps per tile. If the distance to the destination via Road is 50 tiles, the total trip cost will be 200 steps. If the distance to the nearest destination zone is 70 tiles, the trip will require too many steps to complete successfully (280 tiles) and the trip will fail. The same 70-tile trip via Bus, on the other hand, requires only 210 steps and the trip will be successful.



## TRANSFERS TO OTHER MODES

The preceding example, however, presumes that the Sims began their trips on the Bus, but that's a faulty assumption. More often, a Sim starts on a Road and transfers to mass transit en route to continue the trip.

Transfers from one mode of transportation to another occur at stations and have a step cost all their own. This cost tends to be relatively high.

**Table 18-6. Transfer Step Costs**

| <i>Transfer Station</i>   | <i>Step Cost</i> |
|---------------------------|------------------|
| Train Station             | 6                |
| Bus Stop                  | 8                |
| Subway Station            | 6                |
| Ramp                      | 2                |
| Subway-to-Rail Connection | 6                |

Occasionally, a trip will begin on mass transit (if there's a Train or Subway Station within the maximum distance) but more often Sims will exit their cars to board mass transit.



### NOTE

The extra cost of transfers makes it more economical to use mass transit for *long trips*. In far-flung cities, therefore, it really pays to have a good mass transit system and/or a Highway network.

Whether or not Sims transfer to mass transit when they encounter a station depends on a fixed probability: **60 percent**. This probability can be increased to 80 percent by passing the Subsidized Mass Transit Ordinance. The Ordinance will cut your Transit Fare Income by 35 percent, but it's probably worth it.

When considering transfers, remember that for Highway, Rail, and Subway trips, Sims must get on *and off* the conveyance to reach their destinations. Each of these changes requires a transfer cost. Bus trips, however, only require one transfer—while Sims must board Buses at Bus Stops, they can *disembark anywhere*.



Fig. 18-28. When Sims find a mass transit station, there is a 60 percent chance they will switch to the mass transit system to continue their trip. If you've passed the Subsidized Mass Transit Ordinance, the probability increases to 80 percent.



Returning to our 50-tile trip example, let's say the Sim travels 10 tiles by Road (40 steps) before encountering a Subway Station. If the Sim transfers, this adds another 6 steps to the trip. The Sim then rides the Subway for 40 tiles at a cost of 40 steps. The Sim then needs to leave the Subway via a Subway Station, adding another 6 steps to his or her cost. Final total for the trip: 112. Recall that the same trip by Road would have cost 200 steps—this leaves plenty of room for added steps due to travel obstructions.

## TRAVEL OBSTRUCTIONS

Trips can be extended or even blocked by obstructions that add substantially to the cost of the trip. There are two kinds of obstructions: traffic congestion and Road damage.



Fig. 18-29. Potholes cause trip costs to increase dramatically.

## TRAFFIC CONGESTION

Traffic congestion along Roads and Highways and at transit stations adds steps to a trip's cost. The actual amount depends on the degree of congestion on each tile the trip crosses.



### NOTE

**Although Buses travel over Roads and Highways, they do not contribute to congestion.**

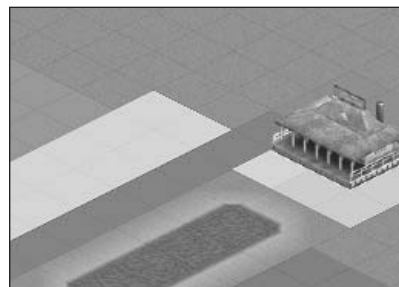


Fig. 18-30. Heavy traffic on any transit type increases the steps-per-tile cost of traveling along a congested Road, Rail, Subway Tunnel, or Highway.

Let's go back to our basic 50-tile via Road trip. Without traffic, the trip costs 200 steps. If congestion along the Roads adds 2 steps to each tile along the way, the total trip cost will be 300 and the trip will fail.

Sims won't, however, just stay on a congested route if a trip is doomed to fail. If the trip encounters a traffic density high enough (a point known as "Traffic Annoyance Level"), the Sim will look for another route.



### NOTE

**Pedestrian traffic is thickest in high-density neighborhoods. Heavy pedestrian levels increase congestion at Intersections. Lots of curves and Intersections further increase congestion.**

The cost of any backtracking to find another route, you can probably guess, adds substantially to the total trip cost.



#### **NOTE**

If you have only one station on a Rail or Subway System, the Sims will ride to the end of the line and return to the original station to look for an alternate route. All of the steps required for this loop add to total cost.

## **TRAFFIC "HERDING"**

Congestion is a particular problem because, as in life, Sims tend to cluster into successful routes. Once a certain number of trips to a zone type complete successfully over a route, it becomes a default thoroughfare.

This focuses all travel to certain zone types over one route even if alternates are available. Sims will persist in this folly until reaching the Traffic Annoyance Level, at which point they'll backtrack and search for another route.

## **ROAD/HIGHWAY DAMAGE**

If you reduce funding to your Roads budget, maintenance will begin to suffer and Road and Highway tiles will begin to become potholed. Sims will travel over these tiles, but doing so adds substantially to trip cost.

Every damaged tile adds 4 steps to the cost of the tile in its undamaged state. A single damaged Road tile, therefore, will cost 8 steps.

Again, Sims may backtrack rather than waste steps bouncing over damaged Roads or Highways. This adds to your cost as well.

Trips by Bus are affected by the condition of Road tiles, converting this otherwise efficient travel mode into an ineffective exercise in transit torture for your Sims.

Therefore, keep your Road budget at 100 percent, even in dark financial times. The toll taken in failed trips and, therefore, abandonment, will be far pricier than the cost of full maintenance.

## **TRIP CONSEQUENCES**

A zone will not develop unless transportation is available within that zone's maximum distance to transportation. Once it does develop, the Sims using it must constantly be able to complete trips.

**NOTE**

Abandoned structures pay no taxes.

One failed trip from an RCI structure causes it to instantly be abandoned. When the structure is later considered for restoration, it is first tested to see if a trip can be completed. If conditions have improved to allow for a successful trip, the structure will be redeveloped.

**CROSS REFERENCE**

For more on abandonment and redevelopment, see Chapter 12.



Fig. 18-31. Moving a Road will cause mass abandonment. Undeveloped zoned tiles will remain empty until transportation is restored.

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TRANSPORTATION

## ORDINANCES

Certain Ordinances impact transportation.

### ALTERNATE DAY DRIVING

- Department: Transportation
- Year Available: 1950
- Prerequisites: None
- Monthly Cost: §0.0001 per Sim
- Pro: Reduces traffic
- Con: Costs money and lowers aura

This Ordinance lowers traffic (10 percent per month) by requiring Sims to leave their cars at home every other day (based on their license plate numbers). The inconvenience of this, however, makes many of your Sims fighting mad at you, lowering aura by 5 per tile.

## CARPOOL INCENTIVE

- Department: Transportation
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: \$0.00011 per Sim
- Pro: Reduces traffic
- Con: Costs money

To decrease your city's traffic congestion, consider passing this incentive program. Drivers are encouraged to take on passengers in lieu of driving alone. The public relations campaign and car-poolers' exemption from Bridge tolls do, however, put a price tag on this helpful initiative.

## CROSSING GUARDS

- Department: Public Safety
- Year Available: 1900
- Prerequisites: None
- Monthly Cost: \$0.00014 per Sim
- Pro: Raises Life Expectancy
- Con: Costs money, increases traffic

Putting crossing guards at busy Intersections prevents accidents (increasing LE by 0.02 points per month) but creates traffic (a 2 percent per month increase).



## PARKING FINES

- Department: Transportation
- Year Available: 1900
- Prerequisites: None
- Monthly Income: §0.001 per Sim
- Pro: Reduces traffic, generates Income
- Con: Lowers aura

Parking fines are a small but helpful revenue source and they tend to reduce traffic (2 percent per month). On the downside, however, they make your Sims very angry—angry enough to reduce aura by 5 on every tile.

## SHUTTLE SERVICE

- Department: City Planner
- Year Available: 1900
- Prerequisites: Must have Bus, Rail, or Subway in your city
- Monthly Cost: §0.001 per Sim plus 2 times the number of Bus Stops
- Pro: Increases distance Sims go to find transportation
- Con: Costs money

A free Shuttle Service makes your entire populace more mobile. Effectively, the Shuttle Ordinance increases the distance each type of Sim will travel to find transportation (Residential: 5, Commercial: 4, Industrial: 6). Also allows development to occur one tile further from transportation (e.g., Residential zones can now be 5 deep instead of 4 deep).

## SUBSIDIZED MASS TRANSIT

- Department: Transportation
- Year Available: 1940
- Prerequisites: At least one Bus Station or Train, Subway-to-Rail, or Subway Station
- Monthly Cost: Decrease in Transit Fare Income
- Pro: Reduces traffic
- Con: Decreases Transit Fare Income

This incentive program cuts transit fares your Sims pay by 35 percent but increases the probability that Sims will ride mass transport by 20. Higher mass transit probability means more fare-paying riders and a substantial reduction in traffic.

## TIRE RECYCLING

- Department: Environment
- Year Available: 1940
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim
- Pro: Reduces garbage output and the cost of new Road tiles
- Con: Costs money

In the spirit of turning the old into the new, this Ordinance authorizes the use of discarded tires in the manufacture of asphalt for your Roads. Recycling the tires knocks 3 percent off your garbage output and 10 percent off the cost of building Ramps and Road and Highway tiles.





# PUBLIC SAFETY

Your Sims count on you to keep them safe from crime and burning houses. Maintaining a strong public safety force is how they expect you to do it. This chapter will lay bare the mechanics of public safety and show you how to get the most out of your resources.



## NOTE

Asian and European versions of buildings appear in *SimCity 3000 Unlimited* only.

## FIRE PROTECTION

The most basic protection you can offer your Sims is from the perils of fire. Fire can strike any time and can spread quickly.

## FLAMMABILITY

Every structure and tree in your city is inherently flammable. Flammability of a tile or structure is revealed with the Query Tool and reflects how easily it will burn if fire appears on or near it.



## NOTE

Only buildings and trees are flammable. Roads, rubble, ash, bare earth, and (of course) water do not burn.



Fig. 19-1. Fire can wipe out entire blocks if allowed to rage out of control.



Fig. 19-2. Even trees are flammable. Fires can start in densely wooded areas near your city and spread to your buildings.

When the simulation chooses a location to start a fire, the flammability of any tiles near the location dictates whether the fire will ignite or not. If flammability is low, the fire may never take hold. If, however, flammability is high, the fire will require the attention of your fire crews. Once a fire is started, the level of a tile's flammability determines how fast the fire escalates. How fast the fire can be extinguished is determined by the level of fire protection coverage (but we'll get to that later). While flammability of buildings and trees is inevitable, it can be minimized.

## FIGHTING FIRE

It's clear, then, that you can battle fire by both lowering flammability and providing adequate fire protection. You have four weapons in your battle against the blaze: water supply, Ordinances, Fire Stations, and Fire Dispatches.

## WATER SUPPLY

Every building and tree in your city is flammable. There's no way to avoid this fact of nature; but you can minimize it by providing water to all of your structures.



### CROSS REFERENCE

For a full discussion of flammability and the mechanics of fire, see Chapter 26.

One of the benefits of connecting your buildings to water, it turns out, is a reduction in the buildings' inherent flammability. Providing water, therefore, makes it less likely (though not impossible) that a fire will ignite at all.

Many mayors like to leave their low-value and dirty Industrial zones unwatered to save money. This won't effect the development of your zones, but it does leave open a rather substantial risk of fire.

Go to the extra expense of watering your entire city; it *will* reduce your fire risk and, besides, it'll save you the constant carping of your Utility Department Advisor.



Fig. 19-3. Total water coverage is your best defense against fire.

## ORDINANCES AGAINST FLAMMABILITY

Two Ordinances reduce flammability; check the Ordinances section of this chapter for full details:

**Table 19-1. Fire Protection Ordinances**

| <i>Ordinance</i>          | <i>Year Available</i> | <i>Flammability Reduction</i> |
|---------------------------|-----------------------|-------------------------------|
| Leaf Burning Ban          | 1960                  | 10 percent                    |
| Mandatory Smoke Detectors | 1970                  | 25 percent                    |



## FIRE STATIONS

Because flammability is inevitable, you need to ensure that once a fire starts, it can be put out before it does any damage.

If a fire starts, the speed with which it's extinguished depends on the number and location of Fire Stations. If there's adequate coverage proportional to the speed of the fire, the blaze will never have a chance to spread.

## PROTECTION RADIUS

Each Fire Station provides protection to all tiles within a defined radius. At 100 percent funding, this radius is 25 tiles. Increasing funding above 100 percent will enlarge this radius, providing wider coverage per station. Above 110 percent, however, you won't see much difference in coverage. Likewise, funding below 100 percent shrinks each Fire Station's area of coverage, requiring you to either build more Fire Stations or leave areas of your city without protection.

If two Fire Stations are close enough together that their protection radii overlap, the area within the overlap receives double protection.



Fig. 19-4. Your best defense is a network of efficient, well-spaced Fire Stations.

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PUBLIC SAFETY



### TIP

It's a good idea to keep Power Plants covered by more than one Fire Station. If they burn down, the consequences could be disastrous.

## PROTECTION EFFECTIVENESS

Fire protection, unlike police protection, is uniform throughout a Fire Station's protection radius. A Fire Station can extinguish a blaze just as effectively 25 tiles away as it can one right next door.

## FIRE COVERAGE AND AURA

The amount of fire coverage in your city affects aura and, consequently, your Approval Rating. You receive an aura boost proportional to the amount of coverage you provide. Full coverage gets you a 10-point bonus. Less coverage offers smaller bonuses, and coverage above 100 percent (overlapping coverage) yields even more points.



## CROSS REFERENCE

More on aura and fire coverage can be found in Chapter 16.

# FIRE DISPATCH

Whenever a fire breaks out within a station's radius of protection, the fire crew automatically rushes to the blaze and gets to work. You don't need to tell the Fire Station to respond.

If, however, a fire starts outside a Fire Station's radius, no crew will respond. In this instance, you can still use your existing Fire Stations to take care of the blaze, but you have to tell them where to go. This is called "dispatching."

You can dispatch one team per Fire Station in your city, plus one (a city with five Fire Stations would have six Dispatch squads). This last squad is a volunteer citizen brigade you can call out *even if you have no Fire Stations*.



Fig. 19-5. During a Fire Disaster, you can dispatch as many squads as you have Fire Stations, plus one citizen-manned bucket brigade.



## NOTE

When you click on more locations than you have Dispatch squads, the first one you placed switches to the new position.

Use the Dispatch Firefighters button in the Emergencies Toolbar and click on the tile to which you'd like them to go.

A Dispatch squad (represented by a red pylon) fights fires in a 4-tile radius. The amount of coverage provided within this radius is actually slightly higher than for a regular Fire Station. You can use dispatches even in areas already covered by a Fire Station. With a particularly large blaze in a highly flammable area, this can make the difference between a little damage and a lot.

Dispatching multiple fire crews will put out a powerful fire more quickly. If your city suffers an inferno, dispatch all of your squads to put it out quickly.



# STRIKES

If you fund your Fire Stations at less than 70 percent, and citywide flammability is more than 100, you create the probability of a strike, increasing with time and the degree of underfunding.

A Fire Department on strike reduces the efficiency of every Fire Station to 20 percent. If you allow the strike to persist, the firefighters will return to work in just under two years.



Fig. 19-6. A Fire Department strike turns your city into a tinderbox.



## CROSS REFERENCE

For more on the effects of strikes, see Chapter 9.

# FIRE STRUCTURE DIRECTORY

## FIRE STATION

- Size: 3 × 3
- Price: \$500
- Monthly Cost: \$30
- Land Value Effect (Res./Com./Ind.): 5/12/12
- Air Pollution Effect (Effect/Radius): 450/10



Fig. 19-7. Fire Station



Fig. 19-8. Asian Fire Station



Fig. 19-9. European Fire Station

- Water Pollution Effect (Effect/Radius): 450/5
- Crime Effect (Effect/Radius): -1/8
- Aura Effect (Effect/Radius): None
- Jobs Created: 45

## POLICE PROTECTION

Your Sims cannot be trusted entirely. Every building, as you know, comes with a certain measure of inevitable crime. As you build your city, these Crime Effects start to mount into a full-fledged crime rate that must be contained. Failing to combat crime causes several consequences:

- Lowered land value
- Lowered aura

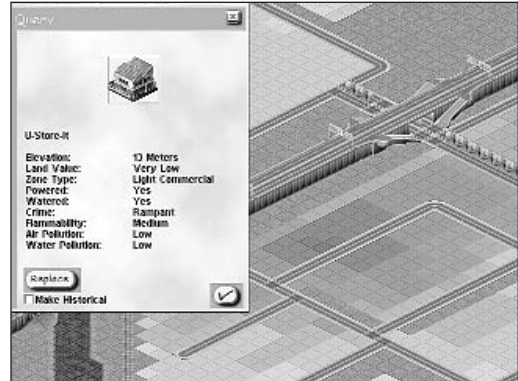


Fig. 19-10. Areas of high crime suffer consequentially poor land value.

Crime, therefore, simultaneously punctures both your tax base and your Approval Rating. It's obviously in your interest to set up a crackerjack police network to keep the criminals down and to put them away once you catch them.



### CROSS REFERENCE

For details on how crime generates and accumulates, check out Chapter 15. For its effects on aura, see Chapter 16.

Four crime-fighting tools are at your disposal: Ordinances, Police Stations, Jails, and Police Dispatches.

## ORDINANCES AGAINST CRIME

Four Ordinances reduce crime and serve, therefore, as police protection tools. Check the Ordinances section of this chapter for full details:



**Table 19-2. Police Protection Ordinances**

| <i>Ordinance</i>   | <i>Year Available</i> | <i>Crime Effect</i> |
|--------------------|-----------------------|---------------------|
| Conservation Corps | 1915                  | -2 per tile         |
| Junior Sports      | 1900                  | -2 per tile         |
| Neighborhood Watch | 1970                  | -4 per tile         |
| Youth Curfew       | 1900                  | -2 per tile         |

## POLICE STATIONS

Your primary crime-fighting tool is the number and placement of your Police Stations. These handsome civic structures emit a halo of crime coverage over all tiles in their radius, reducing crime everywhere within their reach.



Fig. 19-11. Police Stations are your crime-fighting bread and butter.

## PROTECTION RADIUS

Each Police Station provides protection to all tiles within a defined radius. At 100 percent funding, this radius is 30 tiles on every side.

Increasing funding above 100 percent enlarges this radius, providing wider coverage per station. Above 110 percent, though, you won't see much difference in coverage. Likewise, funding below 100 percent shrinks each Police Station's area of coverage, either requiring you to build more Police Stations, or to leave areas

of your city without protection.



Fig. 19-13. The buildings in the overlap area receive cumulative protection from both Police Stations.

| Budget                 |            | Expenditures |                      | Income            |              |
|------------------------|------------|--------------|----------------------|-------------------|--------------|
| 2014 Budget            | April 2014 | Adjust       | Yr. To Date Expenses | Year End Estimate | Most Advised |
| Ordinances             |            |              | \$-1300              | \$-7,672          |              |
| Neighbor Deals         |            |              | \$-2,022             | \$-8,309          |              |
| Loans                  |            |              | \$0                  | \$0               |              |
| Education              |            |              | \$-2,472             | \$-8,888          |              |
| Public Health          |            |              | \$-672               | \$-2,688          |              |
| Fire                   |            |              | \$-944               | \$-6,688          |              |
| Roads                  |            |              | \$-72                | \$-288            |              |
| Police                 |            |              | \$-675               | \$-3,024          |              |
| Mass Transit           |            |              | \$-936               | \$-3,624          |              |
| Year to Date Income    |            |              | \$10,887             | \$54,743          |              |
| Estimated Income       |            |              |                      | \$54,743          |              |
| Year to Date Expenses  |            |              | \$33,043             | \$36,241          |              |
| Estimated Expenses     |            |              |                      | \$36,241          |              |
| Year to Date Cash Flow |            |              | \$4,824              | \$18,502          |              |
| Estimated Cash Flow    |            |              |                      | \$18,502          |              |
| Current Funds          |            |              |                      | \$1,822,895       |              |
| End of Year Funds      |            |              |                      | \$1,841,397       |              |

Fig. 19-12. You may use funding as a tool to expand your Police Stations' area of coverage. Be conservative in your overfunding, however, because there is a downside.

If two Police Stations are close enough together that their protection radii overlap, the area under the overlap receives additive protection.





**TIP**

It's a good idea to keep a Casino covered by more than one Police Station. Place them to just overlap on the Casino itself.

## OPPRESSIVE COVERAGE

You must be mindful of how much you overlap your Police Stations' protection radii, however. If Police Stations are too densely placed, they will become Oppressive, significantly reducing aura.

Check with your Query Tool to see if any Police Station's coverage is rated "Oppressive." You'll notice that, because increasing funding can expand protection radii, a small bump in funding could be the final straw that makes two stations too close together and, therefore, Oppressive.



**CROSS REFERENCE**

Oppressive coverage is discussed in detail in Chapters 15 and 16.

## COVERAGE AND AURA

The percentage of your city covered by police protection directly impacts your aura level. Having optimal coverage (100 percent) boosts aura by 20 points. Less than 100 percent coverage provides a lesser increase.

Above 100 percent, the bonus starts to drop until coverage becomes Oppressive. At this point, you're actually seeing a 10 point *reduction* in aura.

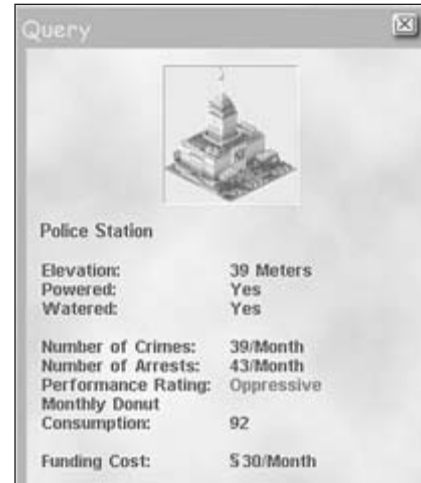


Fig. 19-14. If Police Stations are too tightly packed or budget increases have boosted each station's radius into excessive overlap, coverage becomes Oppressive. Aura in the area covered by the station will be depressed.

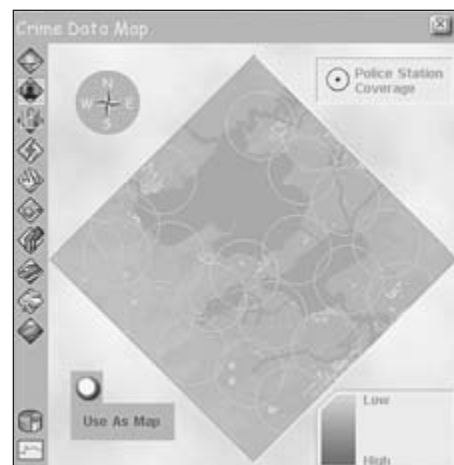


Fig. 19-15. This city will get the entire aura bonus for police coverage.



## PROTECTION EFFECTIVENESS

Police protection is highest directly adjacent to the station and declines with distance.



### TIP

Do not place Police or Fire Stations near the edges of maps where half of their radius of protection will be off the map; this gives your city only minimal benefits.



Fig. 19-16. Buildings right next to a Police Station receive full protection.

A fully effective Police Station's maximum coverage is 80, dwindling to 20 at the radius edge. Full effectiveness is impossible, however, without one other factor: Jails.

## JAILS

Police Stations cannot be fully effective without the appropriate number of Jails operating somewhere in your city limits.



### NOTE

There's no real harm in forging one of these expensive public safety structures immediately. Keep it in mind, however, as a future expense when your population reaches about 20,000.



Fig. 19-17. Without enough Jails, Police Stations can't reach their full potential.

A crime prevention network can only be up to 75 percent effective without at least one Jail in the city limits. Police Stations without Jails, therefore, can only reduce crime by 60 in their immediate vicinity and by 15 at their outer radii.



### TIP

To return to our metaphor of crime as "people pollution," for game purposes think of Jails as the Water Treatment Plants of crime fighting.

You only need as many Jails as your population and crime rate require—adding extras gains you nothing. You can read this demand for Jails by Querying your existing Jails.

## OVERCROWDING

Once the number of inmates equals or exceeds the number of cells, you must add a new Jail. Jails hold up to 300 inmates before being deemed overcrowded. After that, the absolute maximum an overcrowded Jail can contain is 360 inmates.

Overcrowded Jails diminish police effectiveness. If inmates are over capacity by 1–10 percent (300–330), police effectiveness declines to 75 percent—as if the Jail did not exist. If overcrowding exceeds 110 percent, police effectiveness will be reduced proportionally.

Why? Because an over-capacity Jail cannot hold new inmates who are, therefore, released into the community.

## POLICE DISPATCH

Whenever a Riot breaks out within a station's protection radius, the station's squad automatically rushes to the area to quell the uprising. You don't need to tell the Police Station to respond.

If, however, a Riot erupts outside a Police Station radius, no crew will respond. In this instance, you can still use your existing Police Stations to take care of the unrest, but you'll have to direct them where to go. This is called "dispatching."

You can dispatch one squad per Police Station in your city plus one—a city of five Police Stations would have six Dispatch squads. This last Dispatch squad is a volunteer citizen force you can call out *even if you have no Police Stations*.



### NOTE

When you click on more locations than you have Dispatch squads, the first squad you placed switches to the new position.



Fig. 19-18. Overcrowding means you need to build more Jails. If you can't afford expansion, expect a drop in your Police Station efficiency.



Fig. 19-19. Provide extra police response to civil unrest with dispatches. You have one Dispatch squad per Police Station, plus one citizen volunteer brigade.



Use the Dispatch Police button in the Emergencies Toolbar and click on the tile to which you'd like them to go. Note that a police squad on dispatch outside its precinct can't respond to its local Riots until it returns from a dispatch.

A Dispatch squad (represented by a blue pylon) affects Riots and crime in general in a 4-tile radius. The amount of coverage provided within this radius is significantly higher than that of a regular Police Station.

You can use dispatches even in areas already covered by a Police Station. With a particularly large Riot, this can make the difference between a little damage and a lot.

## POLICE STRIKES

If you fund your Police Stations at less than 70 percent, and citywide crime is more than 20, you create the probability of a strike, which increases with time and the degree of underfunding.

## POLICE STRUCTURE DIRECTORY

### POLICE STATION

- Size:  $3 \times 3$
- Price: \$500
- Monthly Cost: \$30
- Land Value Effect (Res./Com./Ind.): 10/15/10



Fig. 19-20. A striking police force provides only minimal protection.

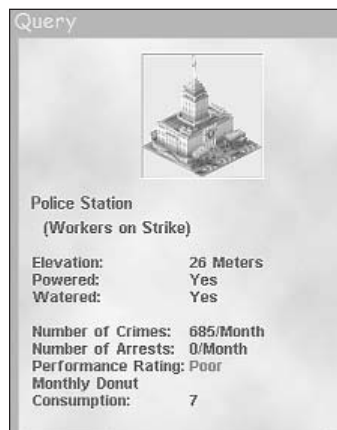


Fig. 19-21. Police Station



Fig. 19-22. Asian Police Station

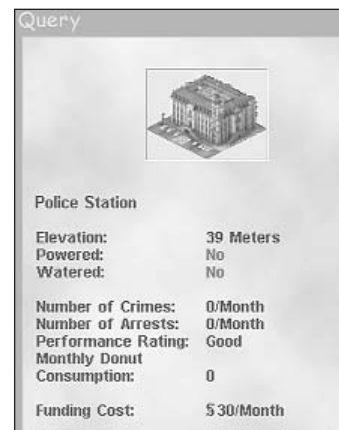


Fig. 19-23. European Police Station

- Air Pollution Effect (Effect/Radius): 450/10
- Water Pollution Effect (Effect/Radius): 450/5
- Crime Effect (Effect/Radius): Special effect, see above
- Aura Effect (Effect/Radius): None
- Jobs Created: 45

## CITY JAIL

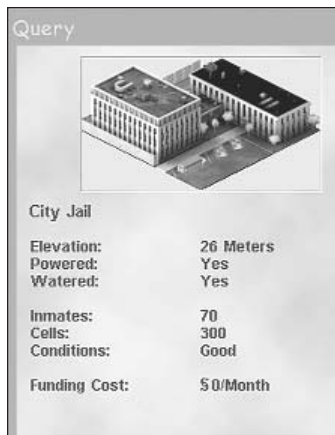


Fig. 19-24. City Jail

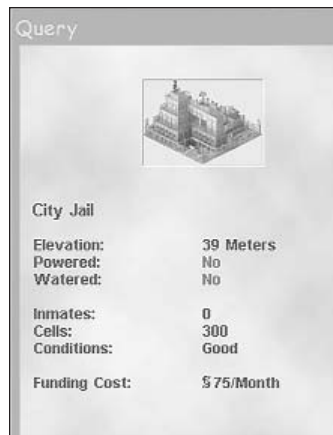


Fig. 19-25. Asian City Jail

- Size: 3 × 3
- Price: \$2,500
- Monthly Cost: \$75
- Land Value Effect (Res./Com./Ind.): -30/-30/-30
- Air Pollution Effect (Effect/Radius): 540/10
- Water Pollution Effect (Effect/Radius): 720/5
- Crime Effect (Effect/Radius): Special effect, see above
- Aura Effect (Effect/Radius): -2/15
- Jobs Created: 45



# ORDINANCES

These Ordinances affect Fire and Police coverage.

## CONSERVATION CORPS

- Department: City Planner
- Year Available: 1915
- Prerequisites: None
- Monthly Cost: \$0.0003 per dirty industry tile
- Pro: Increases clean industry; decreases crime, water pollution, and garbage output
- Con: Costs money

The Conservation Corps works to beautify the city by picking up trash. It's funded through a monthly fee paid by your town's polluters. The probability of clean industry is raised by 4 percent while global crime is reduced by 8 points per tile. It also reduces water pollution and garbage output by 7 percent.

## JUNIOR SPORTS

- Department: Health, Education, and Aura
- Year Available: 1900
- Prerequisites: Must have one School
- Monthly Cost: \$0.001 per Sim plus  $2 \times$  the number of Schools
- Pro: Cuts crime and boosts EQ
- Con: Costs money

Running this after-school junior sports league helps everyone. Keeping kids (aged 8–16) on the courts—and off the streets—reduces crime by 2 in every tile. The program's rigorous academic requirements also have an impact: EQ is increased 0.4 per month when the Ordinance is in effect.

## LEAF BURNING BAN

- Department: Environment
- Year Available: 1960
- Prerequisites: None
- Monthly Cost: \$0
- Pro: Lowers pollution and flammability
- Con: Increases garbage

Bar your Sims from burning leaves in the back yard and you'll lower two of your most dangerous stats: pollution (2 percent) and flammability (10 percent). The leaves, unfortunately, have to go somewhere: back into the garbage (increasing it 2 percent).

## MANDATORY SMOKE DETECTORS

- Department: Public Safety
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: \$0.001 per building
- Pro: Reduces flammability
- Con: Costs money

Requiring your Sims to install these early warning devices costs some money but decreases citywide flammability by 25 percent.





## NEIGHBORHOOD WATCH

- Department: Public Safety
- Year Available: 1970
- Prerequisites: None
- Monthly Income: \$0.0001 per Sim plus  $12 \times$  the number of Jails
- Pro: Reduces crime on every cell
- Con: Costs money

Your police can only do so much. Call out the citizens by instituting a Neighborhood Watch program. Crime is reduced by four on every tile. Though all participants are volunteers, it still costs some Simoleons to run the program.

## YOUTH CURFEW

- Department: Public Safety
- Year Available: 1900
- Prerequisites: One Police Station
- Monthly Income: \$0.0001 per Sim plus  $3 \times$  the number of Police Stations
- Pro: Lowers crime, boosts EQ
- Con: Costs money

It's for their own good! This program mandates kids to be off the streets by 10 p.m. A small amount of money is needed for enforcement but, otherwise, the measure is good for everyone: crime drops citywide by 2 per tile and the kids (aged 1–21) get more sleep and do better in school (reflected by a 0.001 monthly increase in EQ as long as the Ordinance is in effect).



# HEALTH

The health of your Sims is one of those factors that underpins all else. It has no direct obvious effects, but it will quietly and invisibly kneecap your city if left untended. You probably won't realize why things aren't going perfectly, but you'll know something isn't right.

The good news is that health is a very complex concept but one with very simple requirements on your part: build and maintain enough Hospitals, and pass health-boosting Ordinances. If you do these two things, you won't need to understand a thing about the numbers and concepts that underlie health. You will, however, have to understand the somewhat slippery mechanics of keeping a health system running at peak efficiency. That's the purpose of this chapter.

High health levels have the following effects:

- Increase EQ (by keeping more Sims in the workforce)
- Increase Industrial demand
- Raise aura
- Hospitals: Raise nearby land value, create jobs, boost aura, and partially trigger the Medical Research Center Reward building



Fig. 20-1. The Medical Research Center is but one prize for keeping your Sims healthy.

# LIFE EXPECTANCY

Sims can live to be up to 89 years old, but you must take positive steps and await several generations to extend average Life Expectancy (LE) to that point. That is your health care challenge: provide enough health care so that each Sim can live to age 89.

A Sim is stamped at birth with his or her LE. After birth, a top quality health care network and health-enhancing Ordinances indirectly raise LE. On the other hand, LE will decay if you fail to provide an adequate health care network. Any period of decay decreases a given Sim's overall LE and, therefore, the entire city's average LE.

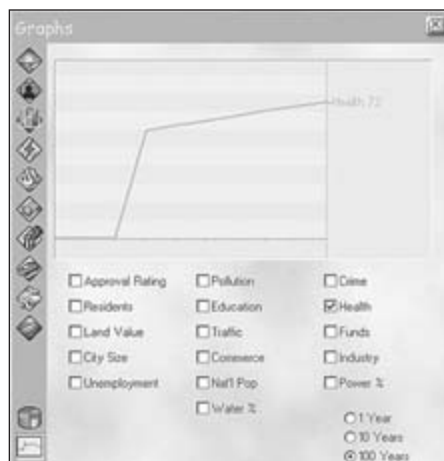


Fig. 20-2. LE is the representation of your Sims' collective health.



It may sound easy, but it's not. There are many challenges to maintaining your health care system and keeping up with demand for Hospital services. Fortunately (or not, depending on your view), most of these challenges involve only money.

## LE VS. WORKFORCE LE

There are actually two different LEs, but only one you need to focus on. The overall LE of your population is less important than Workforce LE (the average Life Expectancy of Sims aged 25–68).

Workforce LE indirectly affects your population's Education Quotient—the longer-lived your workforce, the smarter they'll get.



### CROSS REFERENCE

More on Life Expectancy's link to Education Quotient can be found in Chapter 21.

Workforce LE also affects demand for Commercial and Industrial zones. A longer-living workforce will require more jobs and, thus, a greater influx of job-providing city inhabitants.

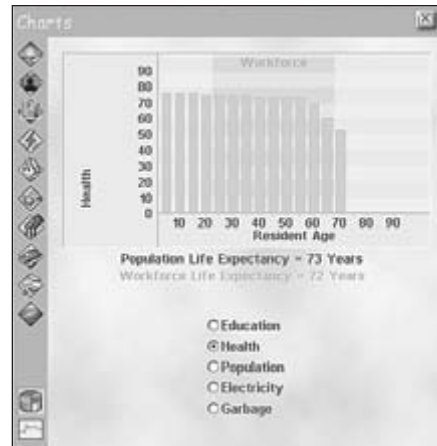


Fig. 20-3. Workforce LE is the average LE of all Sims in the workforce. It is this figure that you need to keep an eye on.

## HEALTH QUOTIENT (HQ)

LE is actually not directly impacted by any game element other than the Health Quotient.

Health Quotient is an internal number used by the simulation to track the health status of each five-year grouping of Sims (0–5, 6–10, etc. are tracked together).

When a Sim is born, HQ is automatically set at 80.10.



### NOTE

HQ does not represent years but simply health “points.”

Over the course of the Sim's life, both individual and collective HQ will decay or increase due to the presence of available Hospitals and the direct effect of various Ordinances.

From HQ is derived Life Expectancy. The LE of age range (“X”) is calculated by:

$$\text{Life Expectancy (X)} = \frac{\left( \text{Minimum Life Expectancy} + \frac{\text{Health Quotient (x)}}{\text{Optimal Yearly Health Quotient}} \right) (\text{Maximum Age} - \text{Base Life Expectancy})}{\text{Maximum Age}}$$

Constants in this equation are:

- Minimum Life Expectancy = 50
- Optimal Yearly HQ = 1.44
- Maximum Age = 89
- Base Life Expectancy = 65

Thus:

$$\text{Life Expectancy (X)} = \frac{\left( 50 + \frac{\text{Health Quotient (x)}}{1.44} \right) (89-65)}{89}$$

Thus, the more HQ points a Sim accumulates over the course of his life, the longer he will live. If he and his generation have quality health care every year of their lives and receive a boost from all relevant Ordinances, they will live to ripe old ages. Part of your challenge is to avoid HQ decay.

## HQ DECAY

If there’s no available health care in your city—meaning no Hospitals or no available Hospital beds for any length of time—Health Quotient will decrease 1.3 percent per month for each five-year age group in your city.

If you maintain enough Hospitals so that health care supply never falls short of demand, HQ decay will never occur.

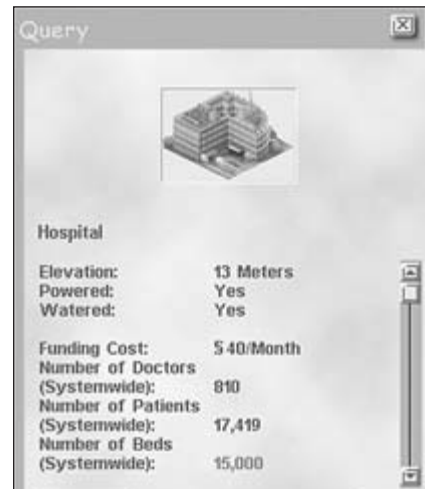


Fig. 20-4. HQ decay occurs if you have no Hospitals or if the number is inadequate for your city's number of infirm.



## HQ AND POLLUTION

Pollution does not directly affect HQ.

Instead, global pollution indirectly affects HQ by placing higher demands on Hospitals. By increasing the percentage of your population that requires hospitalization, high pollution forces you to build and maintain more Hospitals at greater and greater expense.

If you can't keep up financially with the high health care demand of a heavily polluted city, your Sims' HQ will suffer.

The mechanics of this effect are discussed below.

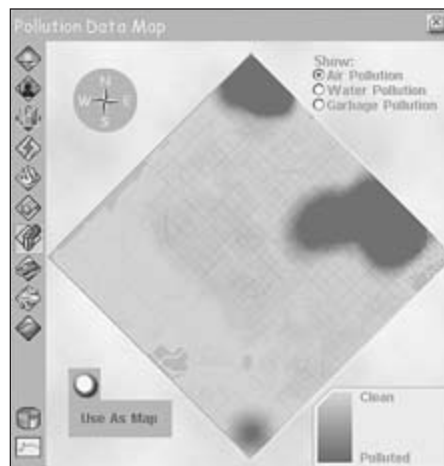


Fig. 20-5. High pollution levels force you to build more Hospitals to accommodate the effects of a dirty environment.

## HQ FROM ORDINANCES

Several Ordinances add to HQ on a monthly basis as long as they're in force. The effect of these Ordinances are shown in Table 20-1.

**Table 20-1. Health Ordinance Effect**

| <i>Ordinance</i>       | <i>Year Available</i> | <i>HQ Gained per Month</i> |
|------------------------|-----------------------|----------------------------|
| Community CPR Training | 1990                  | 0.02                       |
| Crossing Guards        | 1900                  | 0.02                       |
| Free Clinics           | 1960                  | 0.05                       |
| Public Smoking Ban     | 1990                  | 0.02                       |

Having all Ordinances in effect for the entire life of a Sim would increase her HQ by 0.11 per year.

Consult the Ordinance section at the end of this chapter for more detail.

## THE ROLE OF HOSPITALS

Increasing Health Quotient depends primarily on the maintenance of high-quality Hospitals. You must maintain a network of Hospitals sufficient to accommodate all of your sick Sims, with at least a little room left to spare.



Fig. 20-6. Always have enough Hospitals and Query them regularly to see if your supply of beds is sufficient.

As Sims grow up, their Life Expectancy rises each month by a factor determined by the effectiveness of your Hospitals. A Hospital network running at 100 percent funding will increase Sims' Health Quotient by 0.12 per month (or 1.44 per year).

Keeping your Hospitals 100 percent effective, however, is no mean feat. To give your Sims the maximum HQ benefit from your Hospitals, you must keep their collective grade at its highest level: A. This depends on two factors.

## PATIENT-TO-BED RATIO

The ratio of patients to beds must be no more than 1:1. The moment the number of patients exceeds the number of beds, your Hospital grade starts to drop.

The number of beds citywide can only be increased by adding Hospitals. Extra funding has no effect on the number of beds.

## DOCTOR-TO-PATIENT RATIO

The doctor-to-patient ratio should never drop below 1:15. This is the ratio of a full-capacity Hospital (1,500 patients) at 100 percent funding (100 doctors). You can increase the ratio without building Hospitals by adding more doctors. This is done by increasing your Health Funding Percentage to 110 percent.

If, for example, you are unable to build an additional needed Hospital, you can counteract the grade-reduction of running your Hospital over capacity by increasing the doctor-to-patient ratio.

## HOSPITALIZATION RATE

Your Hospitals are at the mercy of your city's Hospitalization Rate. This is the percentage of your populace who require hospitalization.

Generally, the Hospitalization Rate is 5 percent. Thus a city of 100,000 Sims produces 5,000 patients.

The default Hospitalization Rate would, therefore, require four Hospitals (at 1,500 beds each) to handle the load and maintain an A rating.

Hospitalization Rate can, however, be increased by your city's global pollution levels. To see how much pollution increases Hospitalization Rate, the simulation adds average citywide air and water pollution rates and divides them in half (the average of both kinds of pollution). This number is then multiplied by a pollution factor (0.00000999) to arrive at the actual increase in the Hospitalization Rate.



The numbers used in this calculation aren't available while playing the game itself, but we can look at some relative values. Let's say that your city of 100,000 Sims has average air pollution of 8,000 and average water pollution of 5,000. The Hospitalization Rate increase would be 0.0649, or 6.49 percent. This number is added to the default rate of 5 percent to create a new Hospitalization Rate of 11.49 percent.

With this modified rate, your city's Hospitals must now accommodate 11,490 patients rather than only 5,000. This requires eight Hospitals, double the number required before we factored in pollution. This means additional building expenses of \$2,000 and a monthly maintenance increase of \$400 per month (\$4,800 per year)!

You can see how pollution makes it difficult to keep your Hospitals at A level—they can become insufficient even when population stays constant.

## WHEN TO ADD HOSPITALS

When the number of patients is higher than the number of beds, you'll need to add Hospitals. This increase in patients may be due to either increased population or a rise in pollution levels.

## BUDGETING HEALTH CARE

As mentioned previously, the funding level of your Hospitals dictates the number of doctors.

If you choose to overfund your Hospitals, you'll see the number of doctors increase until you hit 110 percent funding. After 110 percent, only a few more doctors will be added, so it's really a waste of cash.

If, on the other hand, you choose to underfund your Health budget, you will reduce the number of available doctors. This won't do you any harm as long as the doctor-to-patient ratio remains below 1:15. If the number of doctors drops low enough or the number of patients rises, you'll find the grade of your Hospitals decreasing rapidly.

Also, if you drop funding below 70 percent and Hospital grades drop to C or lower, you create the probability of a strike.



Fig. 20-7. Keep your Public Health budget at a minimum of 100 percent to maximize HQ. Higher funding levels make your Hospitals more effective but don't add to the number of beds.



Health care strikes flatten your Hospital efficiency to 20 percent and can last, if you don't increase funding, for up to 20 months.



## CROSS REFERENCE

For full details on strikes, see Chapter 9.

# HEALTH BUILDING DIRECTORY

## HOSPITAL

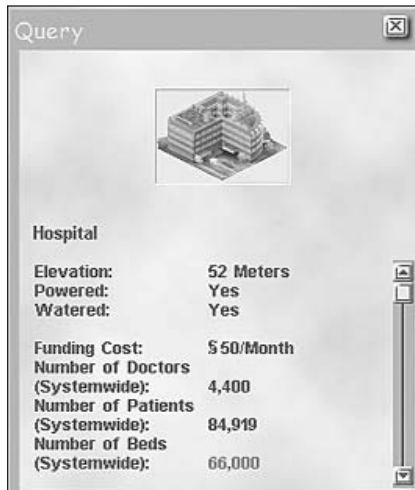


Fig. 20-8. Hospital

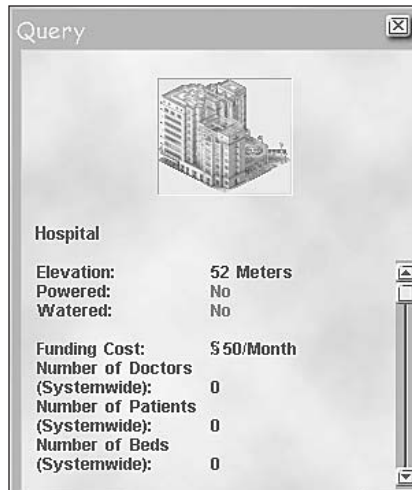


Fig. 20-9. Asian Hospital

- Size: 3 × 3
- Price: \$500
- Monthly Cost: \$50
- Patients Served: 1,500
- Land Value Effect (Res./Com./Ind.): 5/5/5
- Air Pollution Effect (Effect/Radius): 540/10
- Water Pollution Effect (Effect/Radius): 720/5
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 2/15
- Jobs Created: 45



# ORDINANCES

## COMMUNITY CPR TRAINING

- Department: Health, Education, and Aura
- Year Available: 1990
- Prerequisites: None
- Monthly Cost: \$0.0001 per Sim plus  $10 \times$  the number of Hospitals
- Pro: Boosts LE
- Con: Costs money

Teaching ordinary Sims to save lives with CPR has a measurable benefit in terms of Life Expectancy. In fact, HQ gets a boost of 0.02 per month as long as the Ordinance is in effect.

## CROSSING GUARDS

- Department: Public Safety
- Year Available: 1900
- Prerequisites: None
- Monthly Cost: \$0.00014 per Sim
- Pro: Raises Life Expectancy
- Con: Costs money, increases traffic

Putting crossing guards at busy intersections prevents accidents (increasing HQ by 0.02 points per month) but snarls traffic (a 2 percent per month increase).

20

HEALTH

## FREE CLINICS

- Department: Health, Education, and Aura
- Year Available: 1960
- Prerequisites: None
- Monthly Cost: §0.001 per Sim
- Pro: Boosts Life Expectancy
- Con: Costs money

Keep your more unfortunate Sims healthy with a network of free clinics. It seems a small amount of money to boost your citywide HQ by 0.05 per month.

## PUBLIC SMOKING BAN

- Department: Health, Education, and Aura
- Year Available: 1990
- Prerequisites: None
- Monthly Cost: §0.0001 plus  $6 \times$  the number of Hospitals
- Pro: Boosts Life Expectancy
- Con: Costs money

Keep your Sims from lighting up in public with this fiat. It improves the health of smokers and nonsmokers alike by 0.02 HQ points per month.



# EDUCATION

If you really want to reach the promised land of urban glory, you'll have to make an early, enduring, and deep commitment to education. Fostering your Sims' gray matter has such far-reaching effects as eliminating pollution, extending Life Expectancy (LE), and increasing land value.

How can a little book learning accomplish all this? That's what we're here to explore.

High education levels have several effects:

- It increases the likelihood of clean industry in your city. This, in turn, reduces pollution. Reduced pollution raises land value, which, finally, pads your city's coffers.
- It raises aura.
- Schools, Colleges, Libraries, and Museums raise nearby land value, create jobs, and boost aura.
- Museums and Libraries offer Demand Cap Relief.
- It partially triggers the Science Center Reward building.

## STUDENT DEMOGRAPHICS

To understand education, you must understand how children factor into the simulation.

## INITIAL BIRTHRATE

At the dawn of a new city, a group of Sims immigrate to your city. These Sims represent the total age spectrum. In this first group, 1.36 percent of Sims are newborns; this is the first generation under your educational influence.

## BIRTHRATE FLUX

In subsequent years, the percentage of newborns can randomly range from 0.76 percent to 1.96 percent. There is a 20 percent chance that this birthrate will change from one year to the next.

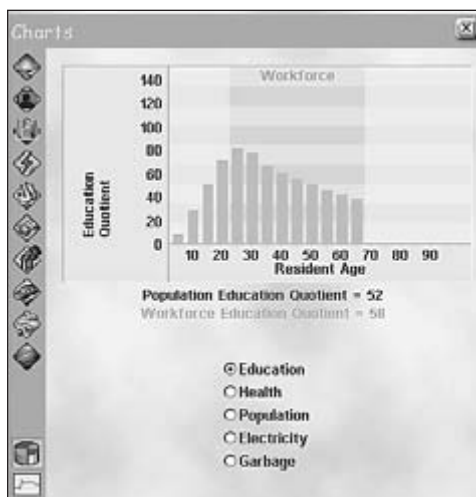


Fig. 21-1. A snapshot of your initial Sim population.

## SCHOOL AGES

Your youthful Sims break down into three ages:

- Preschool: 0–5
- School: 6–18
- College: 19–24

Learning rates and influences differ between these three groups.

## THE GENERAL EDUCATIONAL MODEL

Newborns become the children who are your first students. As these students age, they gain intelligence from their parents, School, and College.

Once they leave college (at age 24), they no longer gain education. Education steadily declines once a Sim leaves active schooling. Decline can be minimized by the presence of mind-enriching facilities (Libraries and Museums) and educational Ordinances.

Education is a cycle. The smarter you make your first generation of Sims, the smarter their children will begin life. The smarter their children are, the smarter they'll be when they graduate. The more you fight Educational Decay, the smarter each generation will stay over the course of its life. This, in turn, creates smarter and smarter newborns. And so on.

It takes several generations to approach the maximum level of intelligence, but it is a steady progression provided you have all of the tools in place to teach and to preserve learning.

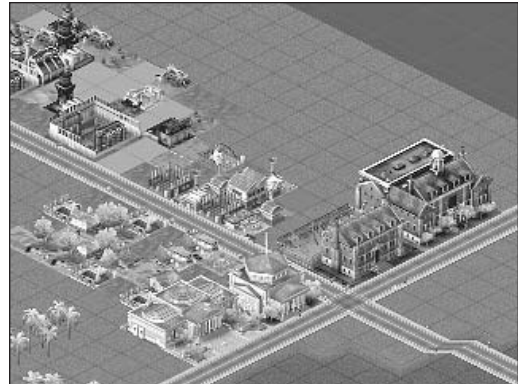


Fig. 21-2. Schools, Colleges, Libraries, and Museums comprise your education system on the ground.

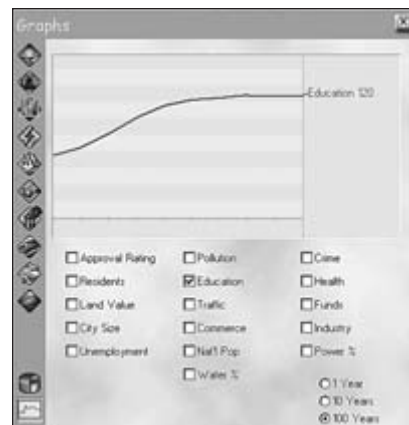


Fig. 21-3. EQ can be checked in the Charts.



## EDUCATION QUOTIENT

Your Sims' smarts are expressed as a factor called "Education Quotient" (EQ). EQ starts at 52 and can grow to be as high as 150.

Keep your eye on EQ to monitor the progress of your educational efforts.

## EQ VS. WORKFORCE EQ

Although there are actually two different Education Quotients, you only need to focus on one. The overall EQ of your population is less important than Workforce EQ (the Education Quotient of Sims aged 25–68). This statistic determines the influx of clean industry.

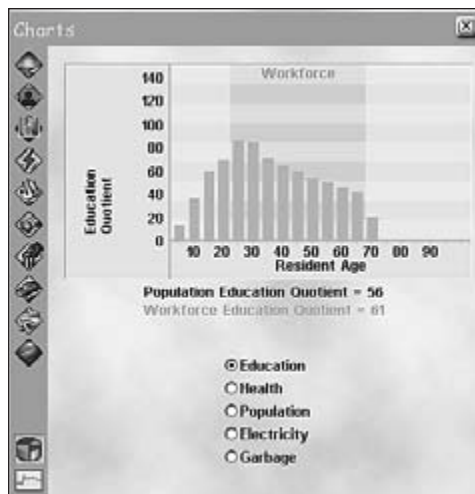


Fig. 21-4. Workforce EQ can be seen only in the Graphs.

## EQ AND CLEAN INDUSTRY

One important goal in *SimCity 3000*, should you choose to pursue it, is the conversion of your polluting dirty industry into valuable, nonpolluting, clean industry.



### CROSS REFERENCE

To learn how to attract clean industry, study Chapter 30.

Workforce EQ is the primary factor in the realization of this goal, but there are several other influences as well. For this reason, we discuss clean industry in its own chapter at the end of this section.



Fig. 21-5. Productive and nonpolluting, clean industry makes a great neighbor.

# INITIAL EDUCATION QUOTIENT AND EQ INHERITANCE

When you begin a new city, your adult Sims start with an average Workforce Education Quotient of 58. Their first generation of offspring begins life with 20 percent of their parents' Education Quotient or an EQ of about 12. From this point on, every subsequent generation inherits 20 percent of the Workforce Education Quotient at birth. As your Sims become more educated, their children begin life even smarter than their parents were at birth.

## GAINING EQ

When Sims are born, their intelligence is determined (as discussed above) by the overall intelligence of their parents (as represented by Workforce EQ). This is the baseline from which a Sim's learning begins. Several factors then begin to influence intellectual growth.

## PARENTAL EDUCATION

Beginning at birth, a young Sim gains EQ from his or her parents' influence. This education stops at age 15, when Sim children rebel against their parents' tutelage.

## EQ FROM ORDINANCES

Several Ordinances add to EQ on a monthly basis as long as they're in force. The effect of these Ordinances is shown in Table 21-1.

**Table 21-1. Educational Ordinance Effect**

| <i><b>Ordinance</b></i> | <i><b>Age Range Affected</b></i> | <i><b>EQ Gained per Month</b></i> |
|-------------------------|----------------------------------|-----------------------------------|
| Junior Sports           | 8–16                             | 0.004                             |
| Pro Reading             | 4–16                             | 0.02                              |
| Youth Curfew            | 1–21                             | 0.001                             |

Consult the Ordinance section at the end of this chapter for more detail.





# PRIMARY/SECONDARY SCHOOL EDUCATION

The most profound influence on young minds is your city's School system. Sims are required to attend School from ages 6–18.

## EQ EFFECT

Each month a Sim is in a School, his or her EQ raises by a certain amount. This amount, however, depends on the funding level set in your Budget window.

A School funded at 100 percent imparts EQ increases of 0.105 EQ per month (or 1.26 per year). Thus, over the course of an entire primary/secondary education, a Sim should gain just over 16 EQ points.



### TIP

**If smart Sims are your goal, fund the Education Department at 110 percent from day one.**

Lower than optimal funding (below 100 percent) reduces this effect. As funding increases (up to about 110 percent), however, the effect is even greater. Beyond 110 percent, there's no appreciable increase in effect.

## PERFORMANCE RATING

A School at 100 percent funding costs \$30 per year to maintain and can serve a maximum of 3,000 students with a staff of 100 teachers.

Lowering the Educational Funding Percentage reduces the number of teachers and raises the student-to-teacher ratio. As the ratio increases, the School's effectiveness drops.

| Budget                     |                                     | Expenditures          |                      | Income          |  |
|----------------------------|-------------------------------------|-----------------------|----------------------|-----------------|--|
| 2054 Budget<br>April 2054  | Adjust                              | Yr To Date<br>Expense | Year End<br>Estimate | Meet<br>Advisor |  |
| Ordinances                 | <input checked="" type="checkbox"/> | \$1300                | \$7,672              |                 |  |
| Neighbor Deals             | <input checked="" type="checkbox"/> | \$2,072               | \$8,391              |                 |  |
| Loans                      | <input checked="" type="checkbox"/> | \$0                   | \$0                  |                 |  |
| Education                  | <input checked="" type="checkbox"/> | \$2,472               | \$9,800              |                 |  |
| Public Health              | <input checked="" type="checkbox"/> | \$672                 | \$2,562              |                 |  |
| Fire                       | <input checked="" type="checkbox"/> | \$144                 | \$666                |                 |  |
| Roads                      | <input checked="" type="checkbox"/> | \$72                  | \$288                |                 |  |
| Police                     | <input checked="" type="checkbox"/> | \$575                 | \$2,700              |                 |  |
| Mass Transit               | <input checked="" type="checkbox"/> | \$306                 | \$1,624              |                 |  |
| Year to Date Income        |                                     | \$13,667              | \$54,743             |                 |  |
| Year to Date Expense       |                                     | \$9,043               | \$35,791             |                 |  |
| Meet Financial<br>Advisor: |                                     | \$4,624               | \$18,952             |                 |  |
| Year to Date Cash Flow     |                                     |                       | \$1,622,005          |                 |  |
| End of Year Funds          |                                     |                       | \$1,641,837          |                 |  |

Fig. 21-6. Keep your Education Department around 110 percent for maximum School effectiveness.

| Query  |            |
|--|------------|
|  |            |
| <b>School</b>  |            |
| Number of Desks<br>(Systemwide):   | 18,000     |
| Number of Students<br>(Systemwide):  | 13,227     |
| Number of Teachers<br>(Systemwide):  | 690        |
| Grade (Systemwide):  | A          |
| Apples for the<br>Teacher:   | 12         |
| Funding Cost:  | \$34/Month |
| <input type="button" value="Replace"/> <input checked="" type="button" value="✓"/> |            |

Fig. 21-7. Performance rating is shown in a School's Query box.

Lowering the funding level *below 70 percent* creates the probability of a strike. The EQ derived from Schools is dramatically reduced during a strike.



## CROSS REFERENCE

For full details on strikes, see Chapter 9.

The student-to-teacher ratio is expressed as a letter grade for the entire educational system. This grade reflects the amount of EQ bestowed upon students in the system.

# COLLEGE EDUCATION

All students who finish primary/secondary Schools will go on to College and remain there through age 24.

## EQ EFFECT

Optimally funded Colleges increase EQ by 0.25 points per month (or 3 EQ points per year). Lower than optimal funding (below 100 percent) reduces this effect. As funding increases (up to about 110 percent), however, the effect is even greater. Beyond 110 percent, there's no appreciable increase in effect.

A full College education at an optimally funded College will, therefore, increase EQ by 18 points.

## PERFORMANCE RATING

A City College at 100 percent funding costs \$125 per year to maintain and can serve a maximum of 7,500 students with a staff of 150 professors.

Lowering the Educational Funding Percentage reduces the number of professors and raises the student-to-professor ratio. As the ratio increases, the College's effectiveness drops.

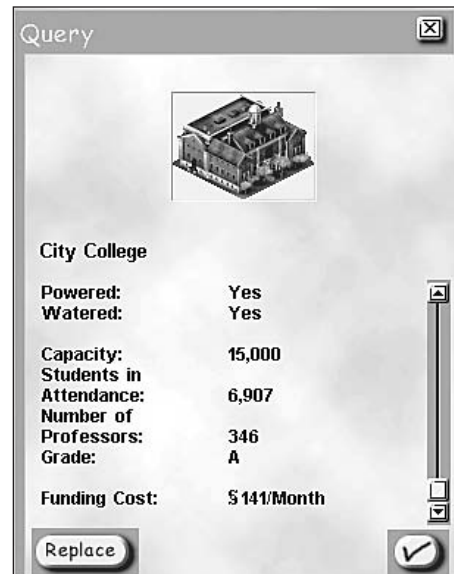


Fig. 21-8. Query your Colleges to see how they're doing.



Lowering the funding level *below 70 percent* creates the probability of a strike. The EQ derived from Colleges is dramatically reduced during a strike.



### CROSS REFERENCE

For full details on strikes, see Chapter 9.

The student-to-professor ratio is expressed as a letter grade for the entire higher education system. This grade controls the amount of EQ bestowed upon students in the system.



Fig. 21-9. Picketing teachers are not what you want to see.

## WHEN TO ADD NEW SCHOOLS AND COLLEGES

Keep watch on capacities versus attendance for both educational systems. If attendance exceeds capacity (the capacity number turns red), your Schools or Colleges are overcrowded. Overcrowding lowers your system's performance grade and, therefore, reduces the amount of EQ conveyed by the Schools.



### TESTER TIP!

To maximize both Educational Quotient and Life Expectancy, as well as amass wads of cash, try this tip. For this to work, your city must be of moderate size (~100,000) and be operating at a profit. Then:

1. Turn off Disasters.
2. Make Neighbor Deals to buy water and power and export garbage.
3. Eliminate all power, water, and garbage facilities in your city.
4. Make sure you have enough Hospital, Schools, Colleges, Libraries, and Museums proportional to your population.
5. Finally, leave the simulator running overnight. When you return, you'll be swimming in cash and have very high EQ and LE levels.

—Mike Lawson, *Maxis*

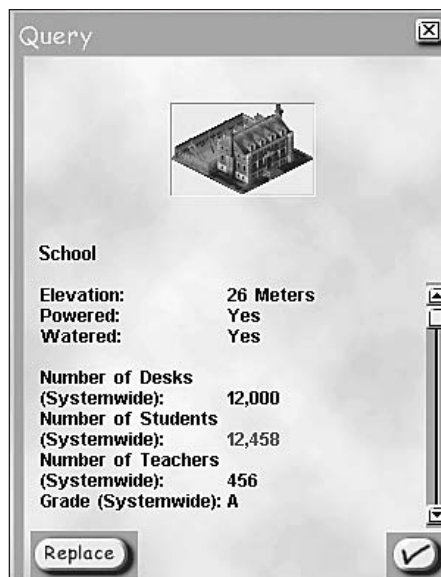


Fig. 21-10. When your School or College Query sees red, it means that you need new facilities.

## EQ DECAY

After schooling is done, every Sim's level of education starts to decay. Each year, barring any intervention, EQ drops by 1.91 percent per year. Thus, left to their own devices, your Sims could lose their entire educational benefit before they die.

## FIGHTING DECAY

There are several ways to fight EQ Decay.

## PRO READING ORDINANCE

This Ordinance, discussed below, impacts both children and adults. As long as the law is enacted, all Sims older than 24 will have 0.01 EQ points added every month (or 0.12 per year). This won't reverse the effects of EQ Decay, but it will minimize them.

## LIBRARIES AND MUSEUMS

Keeping your Sims mindful of the intellectual life is essential to fighting Educational Decay. For this reason, supply your city with both Libraries and Museums.

**Table 21-2. Library and Museum EQ Effects**

| Structure | Monthly Cost | Population Served | Monthly EQ Boost |
|-----------|--------------|-------------------|------------------|
| Library   | \$50         | 41,000            | 0.09             |
| Museum    | \$75         | 83,000            | 0.07             |

Libraries and Museums have a defined EQ effect on all Sims aged 25–100, raising EQ 0.09 and 0.07 per month (or 1.08 and 0.84 per year), respectively.

Since both buildings serve a defined number of Sims, there is no benefit to adding additional structures until the overall population rises above the structures' capacities.

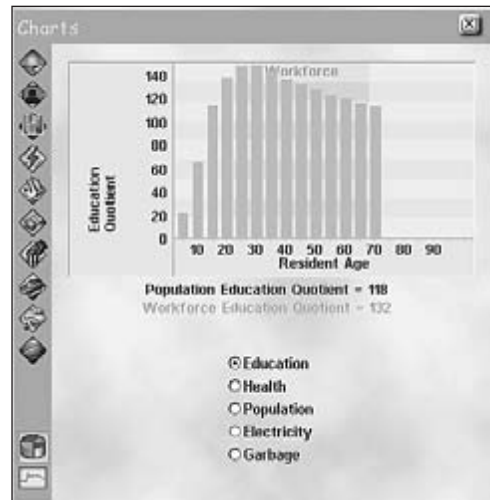


Fig. 21-11. Note the decline in even this educationally healthy city. This is due to EQ Decay.



Fig. 21-12. Place Libraries and Museums to keep your adult Sims sharp.

**TIP**

Loading your city with Libraries and Museums will not increase EQ any faster.

The letter grade for these structures reflects the ratio of structures to population. As population exceeds their capacities, the grade begins to drop. For example, a single Library serving 40,000 people will have a grade of A, but one in a city of 50,000 will drop to a B or below. To keep your grades up and save money, add these buildings only as your city outgrows them.

## EDUCATIONAL BUILDING DIRECTORY

**NOTE**

Asian and European versions of buildings appear in SimCity 3000 Unlimited only.

### SCHOOL

- Size:  $3 \times 3$
- Price: \$500
- Monthly Cost: \$30
- Students Served: 3,000
- Land Value Effect (Res/Com/Ind): 10/10/0
- Air Pollution Effect (Effect/Radius): 450/10
- Water Pollution Effect (Effect/Radius): 450/5
- Crime Effect (Effect/Radius): 10/5
- Aura Effect (Effect/Radius): None
- Jobs Created: 45



Fig. 21-13. School



Fig. 21-14. Asian School



Fig. 21-15. European School

## CITY COLLEGE

- Size:  $3 \times 3$
- Price: \$3,000
- Monthly Cost: \$125
- Students Served: 7,500
- Land Value Effect (Res./Com./Ind.): 10/10/0
- Air Pollution Effect (Effect/Radius): 450/10
- Water Pollution Effect (Effect/Radius): 450/5
- Crime Effect (Effect/Radius): 15/5
- Aura Effect (Effect/Radius): 2/10
- Jobs Created: 45



Fig. 21-16. City College



Fig. 21-17. Asian City College

## LIBRARY

- Size:  $2 \times 2$
- Price: \$1,000
- Monthly Cost: \$50
- Population Served: 41,000
- Residential Demand Cap Relief: 7,000
- Land Value Effect (Res./Com./Ind.): 15/15/0
- Air Pollution Effect (Effect/Radius): 200/10
- Water Pollution Effect (Effect/Radius): 200/5
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 2/15
- Jobs Created: 20



Fig. 21-18. Library



Fig. 21-19. Asian Library



## MUSEUM

- Size:  $3 \times 3$
- Price: \$1,500
- Monthly Cost: \$75
- Population Served: 83,000
- Residential Demand Cap Relief: 9,000
- Land Value Effect (Res./Com./Ind.): 15/15/0
- Air Pollution Effect (Effect/Radius): 200/10
- Water Pollution Effect (Effect/Radius): 200/5
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 1/20
- Jobs Created: 45



Fig. 21-20. Museum



Fig. 21-21. Asian Museum



Fig. 21-22. European Museum

## ORDINANCES

### JUNIOR SPORTS

- Department: Health, Education, and Aura
- Year Available: 1900
- Prerequisites: Must have one School
- Monthly cost: \$0.001 per Sim plus 2 times the number of Schools
- Pro: Cuts crime and boosts EQ
- Con: Costs money

Running this after-school junior sports league helps everyone. Keeping kids (aged 8–16) on the courts and off the streets reduces crime by 2 in every tile. The program's rigorous academic requirements also have an impact: EQ increases 0.4 per month when this Ordinance is in effect.



## PRO READING CAMPAIGN

- Department: Education, Health, and Aura
- Year Available: 1900
- Prerequisites: None
- Monthly cost: §0.00015 per Sim plus 3 times the number of Schools
- Pro: Boosts EQ
- Con: Costs money

Encouraging your Sims to read has positive effects in all generations. For your kids aged 4–16, it means a plus 0.02 (per month) increase in EQ. For the grown-ups, it represents a plus 0.01 (per month) increase. This Ordinance is essential for educating your young and keeping the old sharp.

## YOUTH CURFEW

- Department: Public Safety
- Year Available: 1900
- Prerequisites: One Police Station
- Monthly Income: §0.0001 per Sim plus 3 times the number of Police Stations
- Pro: Lowers crime, boosts EQ
- Con: Costs money

It's for their own good! This program mandates kids to be off the streets by 10 p.m. A small amount of money is needed for enforcement but, otherwise, the measure is good for everyone: crime drops citywide by minus 2 per tile and the kids (aged 1–21) get more sleep and do better in School (reflected by a 0.001 monthly increase in EQ as long as the Ordinance is in effect).



# RECREATION

Your Sims work hard, but they also play hard. So hard, in fact, that providing them recreational facilities is mandatory if you want your city to grow.



## CROSS REFERENCE

See Chapter 11 for the role of recreation structures in Demand Cap Relief. Land value, pollution, crime, and Aura Effects are probed in Chapters 13–16.

Recreational structures have several effects:

- Most enhance land value (particularly Residential).
- Many lower pollution levels
- Many raise local aura
- All provide Demand Cap Relief.
- All supply jobs.

## RECREATIONAL REWARD AND BUSINESS DEAL BUILDINGS

Several of your best entertainment outlets are actually unique Reward or Business Deal buildings, not infinitely usable recreational structures. They play a very similar role in your city, but are more significant due to their rarity and the challenge in obtaining them.

Recreational Reward and Business Deal buildings include:

- Casino Row
- Country Club
- Geyser Park
- GigaMall
- Performing Arts Center
- Stadium
- Theme Park



Fig. 22-1. The Casino, Theme Park, and this Geyser Park are just a few of the one-of-a-kind recreational structures.



## CROSS REFERENCE

These structures are covered separately in Chapter 27.

# RECREATIONAL BUILDING DIRECTORY



## NOTE

Asian and European versions of buildings appear in *SimCity 3000 Unlimited* only.

## SMALL PARK

- Size:  $1 \times 1$
- Price: \$100
- Residential Demand Cap Relief: 250
- Land Value Effect (Res./Com./Ind.): 50/30/10
- Air Pollution Effect (Effect/Radius): -5/8
- Water Pollution Effect (Effect/Radius): -5/8
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 2/8
- Jobs Created: 1



Fig. 22-2. Small Park

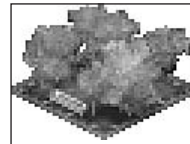


Fig. 22-3. Asian Small Park

## LARGE PARK

- Size:  $3 \times 3$
- Price: \$1,000
- Residential Demand Cap Relief: 2,250
- Land Value Effect (Res./Com./Ind.): 50/30/10
- Air Pollution Effect (Effect/Radius): -180/10
- Water Pollution Effect (Effect/Radius): -180/10
- Crime Effect (Effect/Radius): 6/3
- Aura Effect (Effect/Radius): 2/8
- Jobs Created: 9

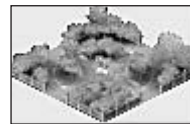


Fig. 22-4. Large Park



Fig. 22-5. Asian Large Park



## FOUNTAIN

- Size:  $1 \times 1$
- Price: \$100
- Residential Demand Cap Relief: 250
- Land Value Effect (Res./Com./Ind.): 50/30/10
- Air Pollution Effect (Effect/Radius): -5/5
- Water Pollution Effect (Effect/Radius): -5/5
- Crime Effect (Effect/Radius): 6/3
- Aura Effect (Effect/Radius): 2/8
- Jobs Created: 1



Fig. 22-6. Fountain



Fig. 22-7. Asian Fountain

## POND

- Size:  $2 \times 2$
- Price: \$500
- Residential Demand Cap Relief: 1,000
- Land Value Effect (Res./Com./Ind.): 50/30/10
- Air Pollution Effect (Effect/Radius): -20/8
- Water Pollution Effect (Effect/Radius): -20/8
- Crime Effect (Effect/Radius): 6/3
- Aura Effect (Effect/Radius): 2/8
- Jobs Created: 4



Fig. 22-8. Pond



Fig. 22-9. Asian Pond

## PLAYGROUND

- Size:  $2 \times 2$
- Price: \$500
- Residential Demand Cap Relief: 1,000
- Land Value Effect (Res./Com./Ind.): 50/30/10
- Air Pollution Effect (Effect/Radius): -20/8
- Water Pollution Effect (Effect/Radius): -20/8
- Crime Effect (Effect/Radius): 6/3
- Aura Effect (Effect/Radius): 2/8
- Jobs Created: 4



Fig. 22-10. Playground



Fig. 22-11. Asian Playground

## MARINA

- Size:  $3 \times 3$
- Price: \$3,000
- Residential Demand Cap Relief: 9,000
- Land Value Effect (Res./Com./Ind.): 25/25/0
- Air Pollution Effect (Effect/Radius): 540/10
- Water Pollution Effect (Effect/Radius): 900/10
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 2/15
- Jobs Created: 18



Fig. 22-12. Marina



Fig. 22-13. Asian Marina



Fig. 22-14. European Marina

## ZOO

- Size:  $4 \times 4$
- Price: \$5,000
- Residential Demand Cap Relief: 24,000
- Land Value Effect (Res./Com./Ind.): 20/25/0
- Air Pollution Effect (Effect/Radius): 960/10
- Water Pollution Effect (Effect/Radius): 960/10
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 1/20
- Jobs Created: 48



Fig. 22-15. Zoo

## SPORTS PARK

- Size:  $4 \times 4$
- Price: \$2,500
- Residential Demand Cap Relief: 4,000
- Land Value Effect (Res./Com./Ind.): 50/30/10
- Air Pollution Effect (Effect/Radius): -160/8
- Water Pollution Effect (Effect/Radius): -160/8
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): None
- Jobs Created: 16



Fig. 22-16. Sports Park



Fig. 22-17. Asian and European Sports Park



# ORDINANCES

What fun would it be playing Mayor if you didn't have laws to pass? At your disposal are 42 finely drafted Ordinances for your executive consideration. Each has both positive and negative effects, but all benefit your city in some way. The trick is knowing how to get the positive while counteracting the negative—and you should be pretty good at that by now.

This chapter contains a quick reference chart of each Ordinance. For complete details on each Ordinance, look to the appropriate chapter.

- Reduce Crime: Conservation Corps, Junior Sports, Neighborhood Watch, and Youth Curfew
- Increase Crime: Legalized Gambling
- Reduce Pollution: Clean Air, Clean Industry Association, Conservation Corps, Industrial Pollutant Impact Fee, Industrial Waste Disposal Tax, Landfill Gas Recovery, Lawn Chemical Ban, Leaf Burning Ban, and Mandatory Car Smogging
- Reduce Industrial Demand: Clean Air, Clean Industry Association, Industrial Pollutant Impact Fee, Industrial Waste Disposal Tax, Power Conservation, Tourist Promotion
- Reduce Commercial Demand: Industrial Waste Disposal Tax
- Increase Commercial Demand: Tourist Promotion
- Increase Clean Industry: Aerospace Tax Incentive, Biotech Tax Incentive, Clean Industry Association, Conservation Corps, Electronics Job Fair, Electronics Tax Incentive, Public Access Cable
- Reduce Flammability: Leaf Burning Ban, Mandatory Smoke Detectors
- Reduce Garbage: Backyard Composting, Conservation Corps, Industrial Waste Disposal Tax, Paper Reduction Act, Tire Recycling, and Trash Presort
- Increase Garbage: Leaf Burning Ban
- Reduce Traffic: Alternate Day Driving, Carpool Incentive, Parking Fines, Subsidized Mass Transit.
- Increase Traffic: Crossing Guards, Tourist Promotion
- Reduce Aura: Alternate Day Driving, Mandatory Car Smogging
- Increase Land Value: Homeless Shelters
- Increase Life Expectancy: Community CPR Training, Crossing Guards, Free Clinics, Public Smoking Ban
- Generate Income: Industrial Pollutant Impact Fee, Industrial Waste Disposal Tax, Legalized Gambling, Parking Fines

- Increase Education Quotient: Junior Sports, Pro Reading, Youth Curfew.
- Water Consumption: Mandatory Water Meters, Water Conservation
- Increase Aura: Nuclear Free Zone
- Power Consumption: Power Conservation, Stairwell Lighting

**Table 23-1. Ordinances**

| <i>Ordinance</i>                       | <i>Dept.</i>                | <i>Year Avail.</i> | <i>Prereq.</i>          | <i>Cost/Income</i>                                     | <i>Pro</i>   | <i>Con</i>                              |
|--|-----------------------------|--------------------|-------------------------|--|--|---|
| Aerospace Tax Incentive                | City Planner                | 1960               | Must have Airport       | -\$0.0001 per clean industry tile                      | Increases demand for clean industry  | Costs money                             |
| Alternate Day Driving                  | Transportation              | 1950               | None                    | -\$0.0001 per Sim                                      | Reduces traffic  | Costs money and lowers aura             |
| Backyard Composting                    | Environment                 | 1970               | None                    | -\$0.001 per Sim plus 5 × the number of Landfill tiles | Reduces garbage output   | Costs money                             |
| Biotech Tax Incentive                  | City Planner                | 1980               | None                    | -\$0.0001 per clean industry tile                      | Increases demand for clean industry  | Costs money                             |
| Carpool Incentive                      | Transportation              | 1980               | None                    | -\$0.00011 per Sim                                     | Reduces traffic  | Costs money                             |
| Clean Air                              | Environment                 | 1950               | None                    | -\$0.0001 per Sim                                      | Lowers pollution, discourages dirty industry                                   | Costs money, discourages dirty industry |
| Clean Industry Association             | City Planner                | 1930               | None                    | -\$0.0001 per Industrial tile                          | Increases clean industry, decreases dirty industry                             | Costs money, decreases dirty industry   |
| Community CPR Training                 | Health, Education, and Aura | 1990               | None                    | -\$0.0001 per Sim plus 10 × the number of hospitals    | Boosts Life Expectancy   | Costs money                             |
| Conservation Corps                     | City Planner                | 1915               | None                    | -\$0.0003 per dirty industry tile                      | Increases clean industry, decreases crime, water pollution, and garbage output | Costs money                             |
| Crossing Guards                        | Public Safety               | 1900               | None                    | -\$0.00014 per Sim                                     | Raises Life Expectancy   | Costs money, increases traffic          |
| Earthquake Resistance and Retrofitting | City Planner                | 1900               | More than 300 buildings | -\$0.03 per building                                   | Minimizes earthquake damage  | Costs money                             |
| Electronics Job Fair                   | City Planner                | 1970               | None                    | -\$0.0001 per Residential tile                         | Increases clean industry   | Costs money                             |
| Electronics Tax Incentive              | City Planner                | 1950               | None                    | -\$0.0001 per clean industry tile                      | Increases clean industry   | Costs money                             |
| Farmer's Market                        | City Planner                | 1900               | None                    | \$0  | Increases Agricultural development   | None                                    |

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| <b>Ordinance</b>                | <b>Dept.</b>                | <b>Year Avail.</b> | <b>Prereq.</b>                           | <b>Cost/Income</b>                                  | <b>Pro</b>  | <b>Con</b>                                      |
|---------------------------------|-----------------------------|--------------------|--|---|---|---|
| Free Clinics                    | Health, Education, and Aura | 1960               | None                                     | -\$0.001 per Sim                                    | Boosts Life Expectancy                                  | Costs money                                     |
| Homeless Shelter                | City Planner                | 1900               | Unemployment more than 10%               | -\$0.001 plus 3 × the number of abandoned buildings | Boosts global land value                                | costs money                                     |
| Industrial Pollutant Impact Fee | City Planner                | 1950               | More than 500 developed Industrial tiles | +\$0.004 per dirty industry tile                    | Decreases dirty industry and pollution, earns money     | Decreases dirty industry                        |
| Industrial Waste Disposal Tax   | Environment                 | 1950               | None                                     | +\$0.0005 per Commercial and Industrial tile        | Generates Income, reduces garbage                       | Lowens Commercial and Industrial demand         |
| Junior Sports                   | Health, Education, and Aura | 1900               | Must have one School                     | +\$0.001 per Sim plus 2 × the number of schools     | Cuts crime and boosts EQ                                | Costs money                                     |
| Landfill Gas Recovery           | Environment                 | 1990               | None                                     | +\$0.0012 per Sim plus the year divided by 10       | Reduces air pollution                                   | Costs money                                     |
| Lawn Chemical Ban               | Environment                 | 1970               | None                                     | -\$0.0001 per Sim plus 5 × the number of Park tiles | Reduces water pollution                                 | Costs money, decreases Agricultural development |
| Leaf Burning Ban                | Environment                 | 1960               | None                                     | \$0   | Lowers pollution and flammability                       | Increases garbage                               |
| Legalized Gambling              | Finance                     | 1900               | None                                     | +\$0.00025  | Produces Income, allows Casino to be built (if offered) | Increases crime                                 |
| Mandatory Car Smogging          | Environment                 | 1980               | None                                     | -\$0.001 per Sim plus the year divided by 10        | Reduces air pollution                                   | Costs money, lowers aura                        |
| Mandatory Smoke Detectors       | Public Safety               | 1970               | None                                     | -\$0.001 per building                               | Reduces flammability                                    | Costs money                                     |
| Mandatory Water Meters          | Utilities                   | 1930               | None                                     | -\$0.0001 per building                              | Reduces water consumption                               | Costs money                                     |
| Neighborhood Watch              | Public Safety               | 1970               | None                                     | -\$0.0001 per Sim plus 12 × the number of Jails     | Reduces crime on every cell                             | Costs money                                     |

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| <b>Ordinance</b>        | <b>Dept.</b>                | <b>Year Avail.</b> | <b>Prereq.</b>   | <b>Cost/Income</b>  | <b>Pro</b>  | <b>Con</b>  |
|-------------------------|-----------------------------|--------------------|--|---|---|---|
| Nuclear Free Zone       | Education, Health, and Aura | 1990               | None   | -\$0.00003 per Sim  | Increases Aura  | Prevents building of/ causes decommissioning of nuclear plants  |
| Paper Reduction Act     | Environment                 | 1960               | None   | -\$0.001 per Sim  | Reduces garbage output                                | Costs money   |
| Parking Fines           | Transportation              | 1900               | None   | +\$0.001 per Sim  | Reduces traffic, generates Income                     | Lowers aura   |
| Power Conservation      | Utilities                   | 1970               | None   | -\$0.0001 per Sim plus $5 \times$ the number of Power Plants    | Reduces Power Consumption                             | Costs money, lowers Industrial demand                           |
| Pro Reading Campaign    | Education, Health, and Aura | 1900               | None   | -\$0.00015 per Sim plus $3 \times$ the number of Schools        | Boosts EQ   | Costs money   |
| Public Access Cable     | City Planner                | 1980               | None   | -\$0.0002 per Sim   | Increases clean industry                              | Costs money   |
| Public Smoking Ban      | Health, Education, and Aura | 1990               | None   | -\$0.0001 plus $6 \times$ the number of Hospitals               | Boosts Life Expectancy                                | Costs money   |
| Shuttle Service         | City Planner                | 1900               | Must have Bus, Rail, or Subway                             | -\$0.001 per Sim plus $2 \times$ the number of Bus Stops        | Increases distance Sims go to find transportation     | Costs money   |
| Stairwell Lighting      | Utilities                   | 1930               | None   | -\$0.0001 per building  | Reduces power consumption                             | Costs money   |
| Subsidized Mass Transit | Transportation              | 1940               | At least one Bus, Train, Subway-to-Rail, or Subway Station | -.35 percent Transit Fare Income                                | Reduces traffic                                       | Decreases Transit Fare Income                                   |
| Tire Recycling          | Environment                 | 1940               | None   | -\$0.0001 per Sim   | Reduces garbage output and the cost of new road tiles | Costs money   |
| Tourist Promotion       | City Planner                | 1900               | Must have more than 25 Commercial Buildings                | \$0.023 per Sim   | Increases Commercial demand                           | Costs money, increases traffic, and decreases Industrial demand |
| Trash Presort           | Environment                 | 1980               | None   | -\$0.0015 per Sim   | Lowers garbage output                                 | Costs money   |
| Water Conservation      | Utilities                   | 1960               | None   | -\$0.0001 per Sim plus the number of buildings                  | Reduces water consumption                             | Costs money, lowers Industrial demand                           |
| Youth Curfew            | Public Safety               | 1900               | One Police Station   | -\$0.0001 per Sim plus $3 \times$ the number of Police Stations | Lowers crime, boosts EQ                               | Costs money   |



# NEIGHBORS

24

NEIGHBORS

No city is an island, not even one *on an island*. Even the most isolated-looking SimCity has neighbor cities on each of its four borders, each with its own Sim population and overworked mayor. You can ignore these surrounding cities entirely and still achieve some measure of success, but to truly shine, your city must connect and interact with your neighbors.

This chapter will explain how and why to connect with your neighbors, what effect you have on each other, and the art of making deals with your neighbors.

Neighbor Connections have the following effects:

- Provide Industrial and Commercial Demand Cap Relief
- Cause neighbor populations to grow
- Lower or raise pollution through buy and sell deals for power, water, and garbage
- Either cost money or generate Income through buy and sell deals for power, water, and garbage
- Increase or decrease land value through buy and sell deals for power, water, and garbage

## NEIGHBOR BENEFITS

Making connections is more than just being friendly, it's about helping your city; think of it as enlightened self-interest. There are myriad economic benefits to building connections to your neighboring cities—keep each in mind as you evaluate each type of connection.

## DEMAND CAP RELIEF



### CROSS REFERENCE

For more on Demand Cap Relief, see Chapter 11.

Commercial and Industrial Demand Caps are raised by one thing: connections to the outside world. This means, primarily, transportation Neighbor Connections. Without any Neighbor Connections, your Commercial and Industrial populations can't grow beyond the populations listed:

- Commercial: 25,000
- Industrial: 70,000

To expand beyond these limits, you're obliged to build some kind of connections to neighboring cities.



### TIP

It takes a while to reach these population milestones, so you won't need to worry about the Demand Cap Effects of connections for a while.

Each transportation Neighbor Connection provides Demand Cap Relief as shown in Table 24-1:

**Table 24-1. Neighbor Connection Demand Cap Relief**

| <i>Connection Type</i> | <i>Com. Cap Relief</i> | <i>Ind. Cap Relief</i> |
|------------------------|------------------------|------------------------|
| Road                   | 12,000                 | 12,000                 |
| Rail                   | 0                      | 25,000                 |
| Seaport                | 100 per tile           | 250 per tile           |
| Subway                 | 25,000                 | 0                      |
| Highway                | 10,000 per tile        | 7,000 per tile         |

Note that each connection type has a different effect on each zone type:

- Roads impact both Industrial and Commercial population equally.
- Rails benefit only Industrial population.
- Seaports help Industrial population and, to a lesser extent, Commercial population.
- Subways impact only Commercial population.
- Highways help Commercial population and, to a lesser extent, Industrial population.



### NOTE

Airports don't provide Neighbor connections, though they do provide Demand Cap Relief.

## ENABLES DEALS

Most types of Neighbor Connections allow you to make deals for utilities. If you don't have the appropriate connection type in place and you are otherwise qualified to make a deal, your Advisors will gently suggest that you consider building something.

If, however, you have the necessary connections in place, your neighbors will offer you any type of deal. Deals and their corresponding connections are shown in Table 24-2.

**Table 24-2. Connection and Deal Types**

| <i>Connection Type</i> | <i>Deals Enabled</i> |
|------------------------|----------------------|
| Road                   | Garbage              |
| Power Line             | Power                |
| Water Pipe             | Water                |
| Rail                   | Garbage              |
| Seaport                | Garbage              |
| Subway                 | None                 |
| Highway                | Garbage              |

Simply having the connections is not all you need to get deal offers, but you won't get any offers without them.

## SPURS NEIGHBOR GROWTH

Your neighbors' city size is boosted when you make connections to them. For each connection *type* to a given neighbor, you'll boost its population by 1 percent per year as long as the connection exists.

The size of your neighboring cities is important in determining the amount of money you'll make off a sell or import deal. The larger a neighbor, the more of a given utility it needs and the more Income you'll receive. The larger the volume of a deal, the greater the profit (Income from the deal minus cost of building utility structures to handle the load).

## CONNECTING TO YOUR NEIGHBORS

Your first step to becoming part of the SimNation community is to initiate a connection to one of your neighbors. Start by running a Road to the edge of the map. When the City Engineers inform you of the cost of the connection, accept it and proceed with building your city.

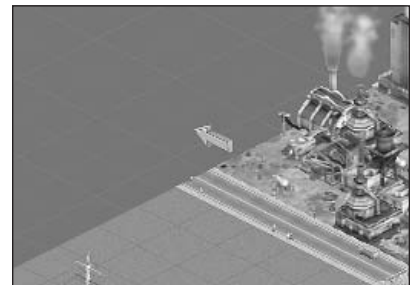


Fig. 24-1. A simple Road is the most basic form of Neighbor Connection.



**TIP**

Early in your city's life, you won't come close to fully utilizing your introductory Power Plant. Make some money off the surplus by immediately setting up a Power Line connection to one of your neighbors. It will take a few years to pay for the cost of the connection, but you will likely end up with a pretty healthy and otherwise unavailable profit when you need it most.

Remember to cancel the deal at the five-year review if your plant is approaching full capacity.

You can, and should, build connections via Water Pipe and Power Line at the outset unless you have no intention of selling or buying power or water initially.



**TIP**

Begin your city in a corner. This gives you easy access to two of your four neighbors without having to run lengthy Roads, Water Pipes, or Power Lines to distant borders.



Fig. 24-2. Build each of the three basic connections (Road, Water Pipe, and Power Line) to enable all Neighbor Deals. Note that this city is starting in a corner, enabling the mayor to connect to two neighbors at minimal expense.

## CONNECTION TYPES AND COSTS

You may connect to your neighbors by any of several means: six over land and one over sea. Each type provides unique benefits and costs.

Strive toward having all types of connections with each neighbor.

### ROAD CONNECTION

- Establishment Cost: \$2,500
- Year Available: 1900
- Demand Cap Relief (Com./Ind.): 12,000/12,000
- Neighbor Population Increase: +1 percent annually
- Deals Enabled: Garbage



Fig. 24-3. A Road connection



## RAIL CONNECTION

- Establishment Cost: \$2,500
- Year Available: 1900
- Demand Cap Relief (Com./Ind.): 0/25,000
- Neighbor Population Increase: +1 percent annually
- Deals Enabled: Garbage



Fig. 24-4. A Rail connection

## POWER LINE CONNECTION

- Establishment Cost: \$2,000
- Year Available: 1900
- Demand Cap Relief: 0
- Neighbor Population Increase: +1 percent annually
- Deals Enabled: Power

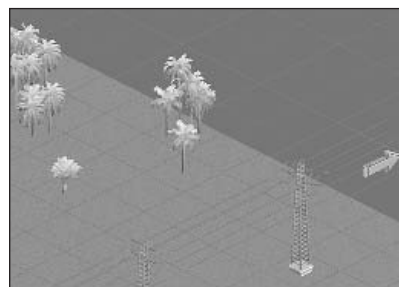


Fig. 24-5. A Power Line connection

## WATER PIPE CONNECTION

- Establishment Cost: \$2,000
- Year Available: 1900
- Demand Cap Relief: 0
- Neighbor Population Increase: +1 percent annually
- Deals Enabled: Water

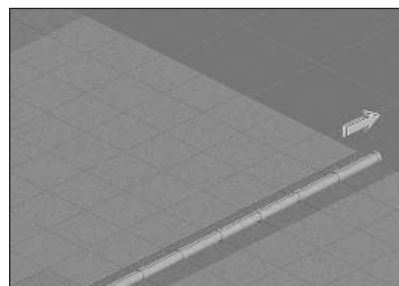


Fig. 24-6. A Water Pipe connection

## SEAPORT CONNECTION

- Establishment Cost: Initial \$1,250, \$250 per tile thereafter
- Year Available: 1900
- Demand Cap Relief (Com./Ind.): 100 per tile/250 per tile
- Neighbor Population Increase: +1 percent annually
- Deals Enabled: Garbage



Fig. 24-7. A Seaport provides an automatic connection to an overseas neighbor.





## NOTE

The Seaport is the only means to connect to an overseas neighbor. There is no added cost for the connection once you set up the basic Seaport. Seaport connections only allow for Garbage Deals.

## SUBWAY CONNECTION

- Establishment Cost: \$4,000
- Year Available: 1910
- Demand Cap Relief (Com./Ind.): 25,000/0
- Neighbor Population Increase: +1 percent annually
- Deals Enabled: None

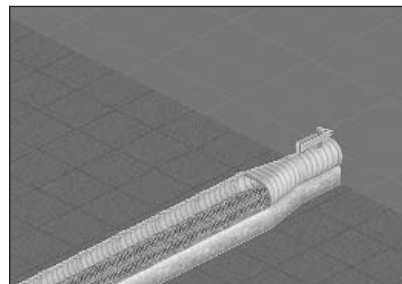


Fig. 24-8. A Subway connection

## HIGHWAY CONNECTION

- Establishment Cost: \$5,000
- Year Available: 1940
- Demand Cap Relief (Com./Ind.): 20,000/14,000
- Neighbor Population Increase: +1 percent annually
- Deals Enabled: Garbage

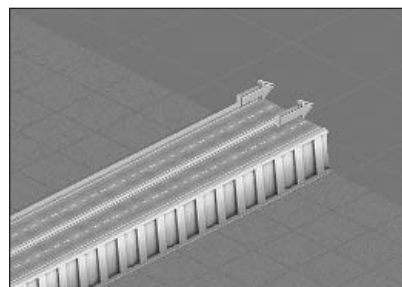


Fig. 24-9. A Highway connection

## CONNECTIONS AND DISASTERS

Disasters destroy connections. Destruction of *all* relevant connections (e.g., all Power Lines to a single neighbor) cancels any deals relating to the severed connection.

An act of nature is no excuse for canceling, and you *will* be hit with cancellation penalties.

To avoid this aggravating fate, build redundant connections of each type and spread them out. Make sure that each is actually connected to your power, water, or transportation network.

Redundancy is usually adequate defense; it's highly unlikely that a Disaster will demolish several connections in one fell swoop.

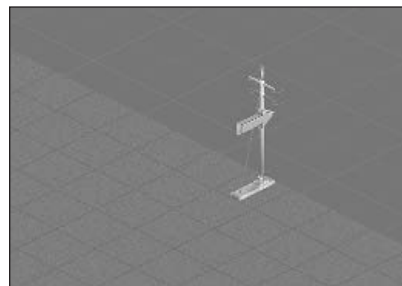


Fig. 24-10. A connection standing alone isn't much help, you must connect the link to your city for any benefit to flow to or from your town.



## INITIAL CONNECTIONS

To begin, you'll only need the most basic connections to your overland neighbors: one Road, one Power Line, and one Water Pipe. These are not, of course, mandatory, but they enable you to buy or sell the three basic utilities immediately.

Don't worry about Highway, Rail, Seaport, or Subway connections until your city has grown a bit. The benefits provided by these connections won't really do you any good until your city is much larger.

Eventually, you'll need to provide redundant connections as insurance against Disaster, but this can wait until you can afford it.

## NATIONAL AND NEIGHBOR CITY POPULATION

Your population is totally unaffected by the population of your neighbor cities.

They, however, can grow with your help.

## NEIGHBOR POPULATION AND CONNECTIONS

In general, each neighbor's population fluctuates each year by -5 to 10 percent regardless of any connections or deals.

Your neighbors will see a 1 percent per year boost for each connection *type* you link to their city. Thus, several Road connections only count for a single 1 percent boost. A neighbor to whom you've connected the maximum available connection types (Road, Rail, Water Pipe, Power Line, Highway, Subway, and Seaports) will see a boost of 7 percent per year above the normal -5 to 10 percent fluctuation.

## NEIGHBOR POPULATION AND DEALS

The number of deals you agree to also sways neighbor population. Each deal in force adds 2 percent annually to neighbor population over the normal -5 to 10 percent fluctuation. The maximum boost, therefore, would be 6 percent (Water, Power, and Garbage Deals).



Fig. 24-11. The Neighbor window shows neighbor populations.

## MAXIMUM NEIGHBOR POPULATION

Neighbors can grow to 4 million Sims and will thereafter randomly fluctuate around that level.

## MAXIMUM SIMNATION POPULATION

When you begin a new game, SimNation population is the sum of your city and your neighbors times 1,500.

Every year, national population changes by the average growth rate of your city plus the growth rates of each of your neighbors until it reaches one billion. Thereafter, it will randomly fluctuate around that size.



Fig. 24-12. SimNation population can be observed in the Graphs.

## NEIGHBOR DEALS

Your neighbors can be a vital source of power, water, garbage disposal, or cold hard cash. Once you make connections to your neighbors, you'll begin to see the offers rolling in.

## DEAL TYPES

Your city and land-connected neighbors can strike six kinds of deals:

- Sell Water
- Sell Power
- Import Garbage
- Buy Water
- Buy Power
- Export Garbage

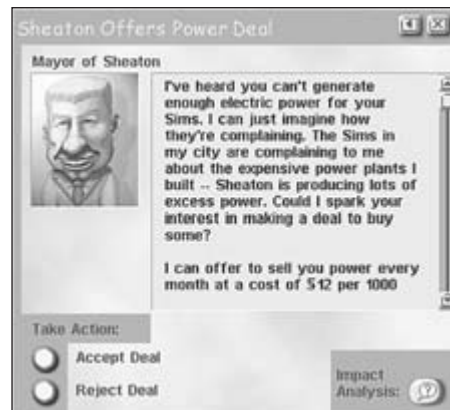


Fig. 24-13. Deal offers show you the terms of the deal.

Because you can't run Power Lines or Water Pipes under large bodies of water, neighbors across an ocean can only engage in deals to import or export garbage. An island city is, therefore, limited to only Garbage Deals.

**TIP**

To avoid the risks of accidentally falling short on a sell deal, set up your power system so you *don't* share resources with your neighbor. This means constructing utility structures to serve *only* your neighbor and isolating those structures from the rest of your city. This makes sell deals easier to manage because you don't have to worry whether your own city's consumption leaves enough for your neighbor. This strategy also makes it easy to calculate the potential benefit of a deal because you'll construct dedicated infrastructure directly attributable to the deal.

## TRIGGERS

Once you have the appropriate connections established (pipes for water, Power Lines for electricity, and Road, Rail, Highway, or Seaport for trash), the offering of deals is related to your own use of your utilities.

If your power, water, or garbage disposal usage is below 40 percent, you'll be offered deals to sell your power or water or import your neighbor's garbage.

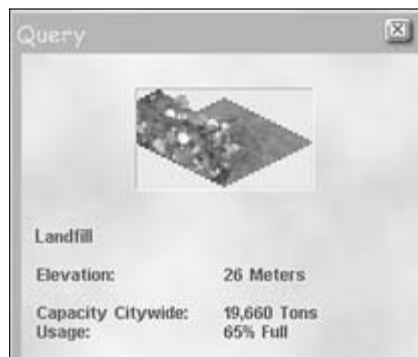


Fig. 24-15. Garbage capacity can be seen by Querying your Landfills and Incinerators.



Fig. 24-14. Power and water usage are shown in the Graphs.

If, on the other hand, any of your utility usages are above 80 percent, your neighbors will decide that you need help and will offer to let you buy their power or water or export your garbage.

You may choose to accept or reject any of these offers. To decide which deals are right for you, consider the following.

## SELL AND IMPORT DEALS

Selling power or water to your neighbors or importing their garbage is an outstanding way to make money.



### TESTER TIP!

Why pollute? Instead of building messy power structures that not only add to your city's pollution but also need to be replaced on a regular basis, just import power from a neighbor. While this seems unnecessarily costly at first, once your city has grown to a relatively large size, the lack of pollution and the need to replace power buildings greatly offsets the costs. This also prevents you from having to worry about a Nuclear Power Plant explosion and allows you to take advantage of the aura-enhancing Nuclear Free Zone Ordinance.

—Syruss Flyte, *Electronic Arts*

## OBLIGATIONS

In exchange for a fixed monthly fee, you obligate yourself to provide a fixed amount of power or water or absorb a set quantity of garbage each month. In other words, you must provide enough infrastructure in your city to supply both your own Sims and the amount agreed upon with your neighbor.

If you fail to meet these needs, nasty consequences (depending on the type of deal) will ensue.



### TIP

To clearly understand what it means to enter into a sell or import deal, think of your neighbor as one gigantic building with a fixed, but very high power, water and/or garbage requirement. Like any other building in your city, you must have enough utility capacity to meet this "structure's" needs.

## DEAL TERMS: AMOUNT

This is the fixed amount you are obliged to supply or import each month. Your neighbor's population and the type of deal determines the amount.

It is presumed that your neighbor will need power for a fixed percentage of its population—this figure is 25 percent.

Each kind of deal presumes a certain number of units per thousand of population:

- Power Units Per 1k: 500
- Water Units Per 1k: 200
- Garbage Units Per 1k: 650

Amount is, therefore, figured by the following formula:

$$\left( \frac{\text{Nbr. Pop.} \times 25 \text{ percent}}{1,000} \right) \times \text{Units per 1k}$$



For example, a neighbor of 100,000 Sims will require per month:

- 12,500 MW-h of power
- 5,000 cubic meters of water
- 16,250 tons of garbage disposal

Amount stays constant for the term of the deal and helps you decide, in advance of a deal, which neighbor would be the most beneficial trading partner.

**TIP**

**Make sell/import deals with your largest neighbors. You'll have to provide much more in return for the larger monthly payment, but profitability tends to increase with the volume of the deal. Because Power Plants and water and garbage structures are one-time investments, the cost of accommodating a large deal and a really large deal is about the same. In this equation, the only thing that increases is the Income you'll receive.**

## DEAL TERMS: MONTHLY PAYMENT

Monthly payment is the amount added to your treasury at the end of each month the deal is in force. It is based on a limited randomly generated fixed rate multiplied by the deal amount (see section on amount).

To determine the rate of the deal, simply divide the monthly payment by the amount. For example, a deal for 8,000 cubic meters of water and monthly payment of \$80 is based on a rate of \$10 per 1,000 cubic meters.

$$\text{\$80} \div (\text{8,000 cubic meters}/\text{1,000}) = \text{\$10 per 1,000 cubic meters}$$

The Neighbor window also clearly displays rates once you've accepted a deal. Knowing the rate helps you compare the benefit of deals with different amounts.

## DEAL TERMS: DURATION

All sell and import deals last for five years. Cancellation before five years results in a substantial penalty.

## DEAL TERMS: PENALTY

If you cancel a deal before its expiration date, a penalty of 25 times the monthly payment will be automatically deducted from your treasury.



Fig. 24-16. Canceling a deal intentionally or unintentionally results in a substantial penalty.

## PRIORITIES

When you enter into a deal to import garbage, your neighbor's garbage takes precedence over your own city's garbage. If you lack the capacity for both your neighbor's and your own trash, your system will absorb the imported trash first and then take what it can of yours. The excess will pile up in your city.

Water and power systems do not prioritize; shortfalls are equally likely to impact you and your neighbor.

## BUY AND EXPORT DEALS

Buying power or water from your neighbors or exporting your trash to them for disposal can be a big money saver and pollution reducer. Lower pollution increases land value, Life Expectancy, and aura, all of which *can* more than pay for the cost of the deal.

## OBLIGATIONS

In a buy or export deal, your neighbor agrees to provide all power, water, or garbage disposal space above what your city can handle. Each month for the life of the deal, you are obligated to pay a variable monthly payment based on the amount actually used or a pre-defined minimum.



### TIP

To more clearly understand what it means to enter into a buy or export deal, think of your neighbor as one gigantic Power Plant, water structure, or Landfill that kicks in when your facilities reach full capacity.

## DEAL TERMS: AMOUNT

The amount in a buy or export deal is variable depending on how much your usage or garbage output exceeds your city's own capacity each month. If, for example, you have a Nuclear Power Plant capable of producing 16,000 MW-h/month and your city consumes 20,000 MW-h, you'll automatically purchase the 4,000 MW-h/month deficit from your neighbor.



### NOTE

A buy deal for power or water only applies to the parts of your city connected to the neighbor. If part of your city isn't at least indirectly connected to the Power Lines or Water Pipes that lead to that neighbor, that part's needs won't enter the deal.





## DEAL TERMS: RATE

The buy or export rate is a randomly generated (from a limited range) per unit cost applied each month of the deal.

If, for example, the rate is \$10 per 1,000 MW-h and your city's consumption of power for a given month is 4,000 MW-h over your local plants' capacity, you'll be charged \$40 for that month.

## DEAL TERMS: MINIMUM

Buy and export deals feature a minimum charge that's deducted monthly from your treasury whether you use your neighbor's resources or not. This minimum varies by the type of deal:

- Power: \$30
- Water: \$25
- Garbage: \$20

## DEAL TERMS: DURATION

All buy and export deals last for five years. Cancellation before five years results in a substantial penalty.

## DEAL TERMS: PENALTY

If you cancel a deal before its expiration date, a penalty of 25 times the rate will be automatically deducted from your treasury.

## TERMINATION

A Neighbor Deal is terminated in several ways.

You can explicitly cancel the deal before expiration through the Neighbor window. After a stern warning, the penalty will be applied immediately.

If you destroy *all* relevant connections to the city with which you have a deal, the deal will be effectively canceled and the penalty will apply.

A Disaster can unintentionally cause cancellation by destroying all relevant connections to your neighbor. Guard against this by building redundant connections.

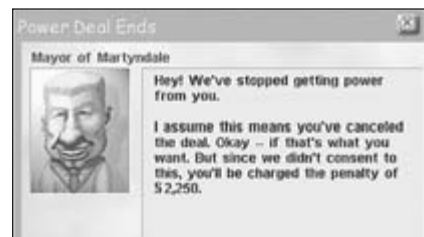


Fig. 24-17. Even unintentional severing of connections will kill a Neighbor Deal.

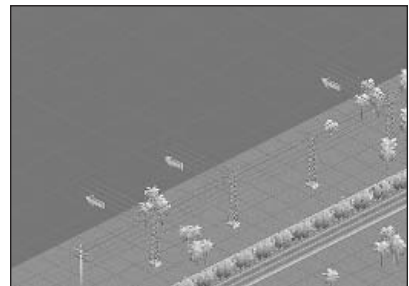


Fig. 24-18. Redundant connections are your insurance against accidental cancellation by Disaster.

In a sell deal, you can accidentally cancel by being unable to supply your neighbor's requirements. If you don't keep an eye on your water supply systems or your Power Plants as they approach maximum capacity, you won't have the opportunity to expand your network before a shortfall causes your neighbor to pull the plug.

In a trash import deal, recall that your neighbor's trash gets priority over yours. So, unless you can't even provide enough Landfill/Incinerator space for your neighbor's trash, it's hard to accidentally cancel an import deal. If, however, you fail to leave room for both trash loads, your domestic trash will start to pile up in your city, creating a pollution and land value crisis.

## RENEGOTIATIONS AND RENEWAL

Five years is a long time, even in SimCity. Neighbor Deals, therefore, need to be renegotiated prior to their expiration.

Starting about six months before expiration, you may begin to see News Ticker messages alerting you to any pending renegotiations. If no terms of the deal have changed, however, the agreement will still be offered so that you have a chance to exit if you like.

### AMOUNT CHANGES

If your neighbor's population has changed since the original deal, there will likely be a change in the amount required under a sell or import deal. This change can be predicted using the formula discussed previously.

### RATE CHANGES

When renegotiation time approaches, the simulation generates a new random deal rate for all types of deals. In a buy or export deal, if the new rate is *less than* the current rate, no change to the deal will occur. In a sell deal, the opposite is true. If, however, the rate rises, you'll be called back to the negotiating table.



Fig. 24-19. Renegotiations are your chance to exit deals without incurring penalties.



## RATE HARMONIZATION

There is one instance in which the renegotiation rate will not be random.

If you have two deals for the same utility type (with two different neighbors), you may be buying and selling the same commodity at different rates. These differences could allow you to potentially profiteer by buying from one neighbor and selling to another at a higher price.

To combat this, the simulation forces a harmonization of the rates at the first available renegotiation. Let's say, for example, you are buying power from Deneneburg at \$11/1,000 MW-h and selling it in a subsequent deal to Kroloff Cove at \$13/1,000 MW-h. At the renewal with Deneneburg, the rate offered will automatically be \$13/1,000 MW-h.

## NO-PENALTY CANCELLATION

At a renegotiation, you can cancel a deal without penalty. If the terms are not to your liking or you simply want out, you can cancel and be done with it.

You may, of course, immediately turn around and strike a new deal with the same neighbor or another, though you may not get a better bargain.

## ORDINANCES

There are no Ordinances applicable to this chapter.



# BUSINESS DEALS

Business Deals just go to show that money does, in fact, make the world go around—even in *SimCity 3000*. It's amazing what people will tolerate in return for a little financial compensation.

A Business Deal is a simple transaction: in exchange for a regular monthly infusion of cash, you agree to host up to four world-class NIMBY structures. These four structures are huge Income producers, but carry one or more serious downsides.

Your essential strategy is to place these buildings where they will do the minimum local harm, but to do so without spending too much money.



Fig. 25-1. Treat Business Deal structures like any other NIMBY building; put them far away from Residential and Commercial zones.

## TRIGGERING BUSINESS DEALS TIME

The first prerequisite for a Business Deal is the date. Each of the four Deal structures becomes available over time as listed below. Obviously, no deal will be offered before a building is available.

**Table 25-1. Business Deal Availability**

| <i>Structure</i>             | <i>Date</i> |
|------------------------------|-------------|
| Maximum Security Prison      | 1900        |
| Casino Row                   | 1915        |
| Toxic Waste Conversion Plant | 1950        |
| GigaMall                     | 1970        |

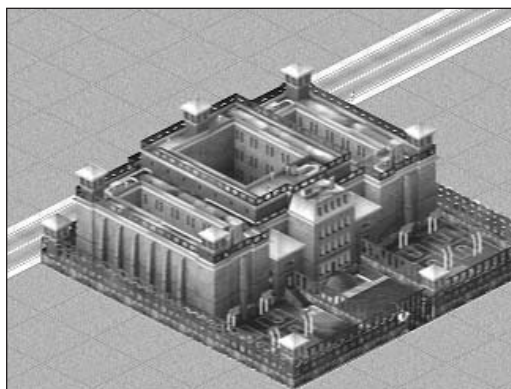


Fig. 25-2. The Maximum Security Prison will be available immediately in 1900.



Once these dates have been reached, there is one time-related limitation:

- No Business Deals will be offered within five years after termination of a previous offer.



## NOTE

As long as an offer of a Business Deal is in your Meeting window, you won't be offered any other Deals. You must either accept or reject any pending offers before others can appear.

## RUNNING LOW ON FUNDS

The vultures only swoop in when you're weak and desperate. That's why Business Deals are partially triggered by the level of your treasury. When funds are running out, they can smell the blood!

When your Current Funds (shown as the second-to-bottom line in your Budget window and at the bottom of the game interface) drop below \$1,500 for more than three months, you may be offered a Business Deal.

## OTHER PREREQUISITES

One of the four Business Deal structures requires an additional factor. The Casino offer won't appear if you haven't passed the Legalized Gambling Ordinance. Enact this Ordinance sometime before 1915 if you want to see the Casino as soon as it's available.

## INITIATING A BUSINESS DEAL

To begin receiving the Income from a Business Deal, you must plant the structure called for in the deal. Merely accepting the offer is not enough; that only makes the structure appear in your Rewards & Opportunities window.

Placing Business Deal structures is free, but you won't want to just plop them down anywhere. Generally, all four buildings are in some way undesirable.

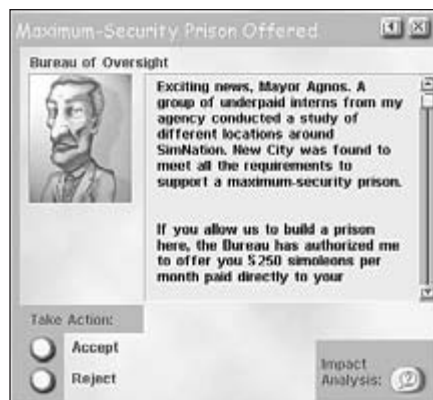


Fig. 25-3. Business Deals are only offered if you are in dire straits financially.



Fig. 25-4. Once you accept a Business Deal, the structure it represents appears in your Rewards & Opportunities window.



**TIP**

Though most Business Deal buildings have some positive proximity effects, you are probably better off placing them far away from your city or at least among your dirty Industrial zones and Power Plants.

Just because they're free, however, doesn't mean they don't cost you any money. Business Deal buildings must be given full services before they'll produce Income. They must be:

- Powered
- Watered
- Connected to your city by transportation of some kind

Balance the need to place these buildings far away with the expense of providing them with basic services.

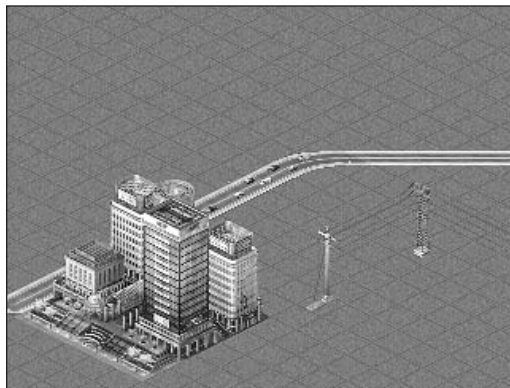


Fig. 25-5. Business Deal structures must be connected to your city's power and transportation grids before the money starts to flow.

## EFFECTS OF BUSINESS DEAL STRUCTURES

Therefore, if you're running low on funds and haven't terminated a Business Deal in five years, you'll be offered the chance to host one of the Business Deals (date permitting). What will this do to your bustling but cash-strapped burg?



Fig. 25-6. Petitioners offer Business Deals. Look to your News Ticker and Meeting window to find when one is available.





## INCREASE INCOME

Business Deals add a fixed monthly amount to your city's Income. Business Income appears as a line item in your Income ledger.

This Income is counted every month as long as the structures are powered, watered, and connected to the city by transportation.

Income from each Business Deal is:

**Table 25-2. Business Deal Income**

| <i>Structure</i>             | <i>Monthly Income</i> |
|------------------------------|-----------------------|
| Maximum Security Prison      | \$250                 |
| Casino Row                   | \$350                 |
| Toxic Waste Conversion Plant | \$400                 |
| GigaMall                     | \$300                 |

Income is paid monthly. If you decide to end the deal (or have it ended for you by a Disaster), the rest of the Income after the current month is deducted from your Year End Estimate in the Budget window.

## LOCAL BUILDING EFFECTS

Each of the four Business Deal structures will severely impact any buildings nearby. Though most have benefits beyond the Income they produce, these positives must be weighed against the negative effects, including the cost to counteract those effects. Outlined below are the effects associated with each building. For more detail on these effects, consult the Building Directory later in this chapter.

| Budget                       |         | Expenditures           | Income               |                 |
|------------------------------|---------|------------------------|----------------------|-----------------|
| 2002 Budget<br>February 2002 | Adjust. | Year to Date<br>Income | Year End<br>Estimate | Most<br>Advised |
| Ordinances                   |         | \$0                    | \$0                  |                 |
| Neighbor Deals               |         | \$0                    | \$0                  |                 |
| Business Deals               |         | \$300                  | \$3,600              |                 |
| Transit Fares                |         | \$0                    | \$0                  |                 |
| Disaster Relief              |         | \$0                    | \$0                  |                 |
| Residential Tax Rate         | 7       | \$5                    | \$60                 |                 |
| Commercial Tax Rate          | 7       | \$0                    | \$0                  |                 |
| Industrial Tax Rate          | 7       | \$4                    | \$48                 |                 |
| Year to Date Income          |         | \$308                  | \$3,708              |                 |
| Year to Date Expense         |         | \$2                    | \$24                 |                 |
| Year to Date Cash Flow       |         | \$307                  | \$3,684              |                 |
| Current Funds                |         | \$14,903               |                      |                 |
| End of Year Funds            |         | \$18,617               |                      |                 |

Fig. 25-7. Income from Business Deals appears in your Income ledger.



Fig. 25-8. This Casino, for example, produces a brutal and far-flung dose of local crime.





## CROSS REFERENCE

For details on Demand Cap Relief, Demand Satisfaction, and job supply, see Chapter 11. For Land Value Effects, see Chapter 13. For pollution, see Chapter 14. For crime effects, consult Chapter 15. Aura is discussed in detail in Chapter 16. Finally, look to Chapter 26 for Disasters.

**Table 25-3. Local and Global Building Effects**

| <i>Structure</i>             | <i>Positive Effects</i>  | <i>Negative Effects</i>  |
|------------------------------|--|--|
| Maximum Security Prison      | Creates lots of jobs   | Decreases Res., Com., and Ind. land value; increases air and water pollution; decreases aura; high garbage output  |
| Casino Row                   | Satisfies Com. demand, provides Res. Demand Cap Relief, increases Com. and Ind. land value, increases aura, creates lots of jobs | Decreases Res. land value, increases air and water pollution, increases crime, high garbage output   |
| Toxic Waste Conversion Plant | Creates lots of jobs   | Decreases Res., Com., and Ind. land value; dramatically increases air and water pollution; decreases aura; increases probability of Toxic Cloud Disaster ( <i>Unlimited</i> only); high garbage output |
| GigaMall                     | Satisfies Com. demand, provides Res. Demand Cap Relief, increases Com. land value, increases aura, creates lots of jobs          | Decreases Res. land value, increases air and water pollution, increases crime, high garbage output   |



## NOTE

The Toxic Waste Plant contributes to the likelihood of the Toxic Cloud Disaster (*Unlimited* only). To decide whether to launch this Disaster, the simulation tabulates “points” based on various factors (pollution level, anti-pollution Ordinances, etc.). Having a Toxic Waste Conversion Plant contributes *half* the points necessary for the Disaster.

# TERMINATING A BUSINESS DEAL

You can end any of these deals by demolishing their structure. Doing so eliminates all future Income payments from your Budget window’s Year End Estimate.

If you terminate a Deal, you won’t be offered another for five years even if all other trigger conditions are present.



Deals can be ended involuntarily if a Disaster claims one of your Business Deal structures. Guard against the most common Disasters by locating Police and Fire Stations nearby.



### TESTER TIP!

You can use Business Deals to build a very strong start to your city. First, begin at Medium Difficulty in the year 2000. Build a functional city and let it go into the red. Accept all four Business Deals as they are offered and place the buildings on the edge of the map. Next, set up connections near the Business Deal Buildings to neighbors and make deals to buy power and water. Then, place a road around your Business Deal structures and set up and power small Industrial, Commercial, and Residential zones nearby.

Finally, bulldoze your old basic city and let this new mini-city start to grow. Your new city will rake in bucks as you develop (about \$10,000 per year just for the Business Deals).

Once things are going well, get rid of the Toxic Waste Plant to get pollution under control.

—Mike Lawson, *Maxis*

## BUILDING DIRECTORY

Consult this list for vital stats and building effects for each Business Deal structure.



### NOTE

Asian and European versions of buildings appear in *SimCity 3000 Unlimited* only.

## CASINO ROW

- Year Available: 1915
- Size: 5 × 5
- Price: \$0
- Special Prerequisite: Legalized Gambling Ordinance
- Demand Cap Relief (Res./Com./Ind.): 75,000/0/0
- Land Value Effect (Res./Com./Ind.): -40/15/5
- Air Pollution Effect (Effect/Radius): 1,500/10
- Water Pollution Effect (Effect/Radius): 1,500/8
- Crime Effect (Effect/Radius): 2/17
- Aura Effect (Effect/Radius): 2/15
- Jobs Created: 250



Fig. 25-9. Casino Row

## GIGAMALL

- Year Available: 1970
- Size:  $5 \times 5$
- Price: \$0
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): 25,000/0/0
- Land Value Effect (Res./Com./Ind.): -10/5/0
- Air Pollution Effect (Effect/Radius): 1,500/10
- Water Pollution Effect (Effect/Radius): 2,000/15
- Crime Effect (Effect/Radius): 20/16
- Aura Effect (Effect/Radius): 3/30
- Jobs Created: 250



Fig. 25-10. GigaMall



Fig. 25-11. Asian GigaMall



Fig. 25-12. European GigaMall

## MAXIMUM SECURITY PRISON

- Year Available: 1900
- Size:  $5 \times 5$
- Price: \$0
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): None
- Land Value Effect (Res./Com./Ind.): -40/-20/-10
- Air Pollution Effect (Effect/Radius): 1,750/10
- Water Pollution Effect (Effect/Radius): 1,750/10
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): -2/20
- Jobs Created: 225



Fig. 25-13. Maximum Security Prison



## TOXIC WASTE CONVERSION PLANT

- Year Available: 1950
- Size:  $5 \times 5$
- Price: \$0
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): None
- Land Value Effect (Res./Com./Ind.): -90/-50/-20
- Air Pollution Effect (Effect/Radius): 175,000/20
- Water Pollution Effect (Effect/Radius): 125,000/20
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): -3/25
- Jobs Created: 250

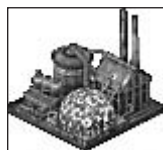


Fig. 25-14. Toxic Waste Conversion Plant

## ORDINANCES

### LEGALIZED GAMBLING

- Department: Finance
- Year Available: 1900
- Prerequisites: None
- Monthly Income: \$0.00025
- Pro: Produces Income, allows Casino to be built (if offered)
- Con: Increases crime

There's no free money and this Ordinance provides no exception to the rule. Your treasury will get a monthly cut of all city gambling Income. With this filthy lucre, however, comes a large increase in crime (plus 20 on every tile!) over your entire city. On the upside, once you pass this Ordinance, you can be offered the Casino Business Deal.



# DISASTERS

Things happen; that's the guiding principle behind Disasters. Just when things are going great, something awful happens that forces you to stop polishing your commemorative statue in the Park and admiring your stratospheric Approval Rating. You have to drop everything to save your Sims from catastrophe.

It may seem an irritating distraction, but a big part of being a mayor is dealing with the unexpected. Here you will learn to anticipate Disasters, deal with them, minimize their damage, and, when possible, avoid them entirely.

To do any of this, however, you must understand several general Disaster principles and how each Disaster functions. This chapter will guide you through the details of coping with acts of, well, you know who.

## HOW DISASTERS STRIKE

Two things can cause Disasters: the simulation and you.

Simulation-triggered Disasters occur based on a combination of random factors and complex rules (outlined for each Disaster below). These Disasters are usually foretold in the News Ticker and via Advisor topics.

User-initiated Disasters are started by you if you're in a particularly malicious mood. Any of the game's Disasters can be unleashed by your hand, but elements of the Disaster may differ from a naturally occurring Disaster. You can inflict several Disasters at once.

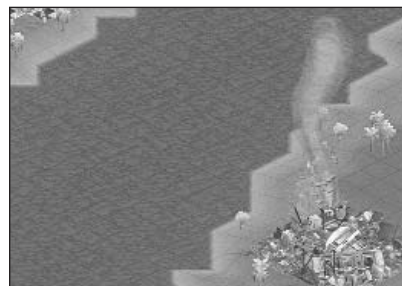


Fig. 26-1. Whether the simulation starts a Disaster or you do, the effects are just as harrowing.

## GENERAL DISASTER CONCEPTS

### DISASTERS ON OR OFF

You can play *SimCity 3000* with Disasters on or off. Turning them off leaves you with only the mechanics of your city as a primary concern. Not even fires will break out unless you turn Disasters back on.

**TIP**

If you turn off Disasters, you don't need any Fire Stations. You'll have to endure constant messages from your Advisor about the lack of coverage but, if you can ignore that, it's a great way to save money. Note that you'll also be foregoing the sizable boost in aura generated by full fire coverage.

Turning off Disasters is safe but, like most safe things, boring. You can, however, still initiate Disasters manually even with the option turned off.

**GO TO DISASTERS**

You can tell the game you'd like your view to be automatically jumped to the site of a Disaster when it strikes by checking Auto Go To Disasters.

If, however, you don't select Auto Go To Disasters, you'll need to find the Disaster yourself. This is most easily accomplished by clicking on the red linked (underlined) notices screaming across your News Ticker or on the Go To Disaster button on the Emergency Toolbar.

Auto Go To Disaster is useful, but can be very disorienting in the event of multiple Disasters. If a Riot breaks out and fires start as a result, you will be automatically switched from Disaster to Disaster. This makes it very hard to do much of anything before your view leaps to a new location.

**DISASTER SPEED**

When a Disaster begins, the game switches to a unique speed used only for Disasters. This Disaster Speed is the slowest of all speeds, allowing you to deal with the Disaster at a reasonable rate.

The downside to this feature is that you cannot pause the game and deal with the Disaster in suspended time.

**TIP**

You actually can pause Disasters by selecting Save As from your Change Settings and Exit menu or Budget from the Adjust & Review menu. In neither case, however, can you make any changes to your city while paused, but at least you can go to the bathroom.

Once the Disaster is over, previous speed is restored and you may pause to do clean-up.

## PREMONITIONS

With the exception of Fires and Whirlpools, every Disaster warns of its arrival. Whether you're alert enough to notice is, however, up to you. These premonitions can be News Ticker items, Advisor topics, or audio or visual clues. If you know what to look for, you'll never be taken by surprise.

Premonitions for each Disaster are covered in the sections below.



## THE EARLY WARNING SYSTEM

You can warn your Sims to take cover in certain Disasters with the Early Warning System (the Activate Warning Siren in your Emergency menu). When you sound the alarm, the Sims in the streets scurry to safety and all cars leave the roads. All streets remain empty for a fixed amount of time.

## EWS DISASTERS

Disasters calling for the EWS are:

- UFO
- Tornado
- Toxic Cloud (*Unlimited* only)
- Space Junk (*Unlimited* only)

You can use the EWS with all other Disasters, but it won't have any effect. Nor, however, will such use of alarms count as frivolous use of the system.

## WHEN TO USE THE EWS

Sound the alarm as one of the above Disasters strikes. If you do so in the brief window of opportunity, you'll both save some lives and make yourself eligible for a 10 percent boost in Disaster Relief Income.

If you use the EWS too early, your Sims may return to the streets before the Disaster is over. Don't be *too* quick on the trigger.



Fig. 26-2. Your Advisors can warn you of impending Disasters.

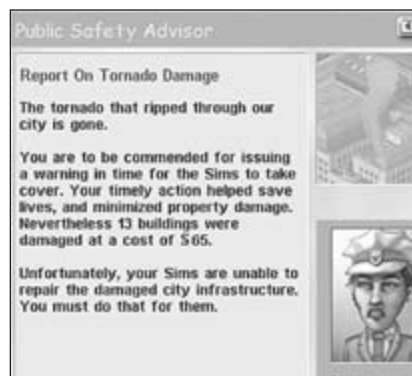


Fig. 26-3. Sounding the EWS tells Sims to hightail it home. If you use it correctly, you'll be commended by your Advisors and rewarded by the SimNation government.





## ABUSING THE EWS

Don't abuse the EWS or your Sims will become distrustful of it. If you sound the EWS twice when no Disaster is occurring, your Sims will ignore future alarms.

The frivolous EWS counter is reset over time and by the occurrence of a real Disaster. In the second case, you won't be able to use the EWS for the Disaster itself, but you will have a fresh start when Disaster next occurs.

Sounding the EWS irrelevantly (in Disasters not affected by it) does not count toward frivolous soundings.

## DISPATCH

Dispatches allow you to command your Police and Fire Departments to a specific location.

Most Disasters cause fires. Riots demand the intervention of Police. If these Disasters occur within a station's range of protection, the local squad will deal with the Disaster automatically.

If a Disaster occurs outside the protection zone of a station, however, you must Dispatch a unit to the location. The number of dispatches available to you is equal to the number of Police or Fire Stations you have in your city, plus one. The extra squad represents a citizen brigade that can be called out even if you have no public safety buildings.



Fig. 26-4. Dispatches bring police and fire coverage to unprotected areas struck by Disaster or bring extra effect to troublesome spots.



### NOTE

Dispatch pylons can't be placed on water or tiles actively on fire.

Dispatching a squad to a tile places a dispatch pylon on the site (blue for police, red for fire). The pylons act as mini-stations, exerting crime or fire protection in a defined radius. Both Police and Fire Dispatches have a stronger effect but smaller radius than an operating station.



### NOTE

Once you've dispatched all of your Dispatch squads to a location, clicking on a new tile will move the pylon you placed first.

Police and Fire Department strikes affect dispatches in the same way as stations: reducing them to 20 percent of normal efficiency.

You may also use dispatches to exert added effect—faster extinguishing of fires or more overpowering quelling of Riots, for example.

## CROP DUSTER DISPATCH



In *SimCity 3000 Unlimited*, one of the new Disasters requires a new kind of dispatch. When the Plague of Locusts Disaster occurs, you can protect your Farms by dispatching Crop Dusters to spray the fields with chemicals.

If the planes get to the fields before the bugs, the crops will survive and the swarm will be exterminated.

Crop Dusters don't require an Airport, but will take off from one if it's available, allowing you to gauge how quickly they will reach the afflicted fields.

Crop Duster pylons are green.



Fig. 26-5. Crop Dusters can be called out in the event of a locust swarm.

## CLEAN-UP

After a Disaster, you'll probably want to tidy things up. Tiles covered in ash or rubble will not redevelop unless you clear the tile first. This costs a fair bit of money.

You'll have to manually rebuild all non-RCI structures and transportation and utility grid elements. Don't forget to check underground after an Earthquake or Space Junk Disaster; Subway Tunnels and Water Pipes may have been broken.



Fig. 26-6. Clean up the mess or nothing will develop in Disaster sites.



### TESTER TIP!

Finding destroyed buildings in dense downtown areas can be infuriating. Use the Building Architect to create "empty" buildings. Make one for each building size (1 × 1, 2 × 2, 3 × 3, 4 × 4). Just paint the ground and render. Then when you're looking for those few "destroyed buildings" left after a Disaster in the midst of all those high-rise buildings in the center of your city, just replace each high-rise with the appropriate "empty" building. This allows you to see down to the ground level and find the ruins of those destroyed buildings. Once you've cleaned everything up, just "revert" the buildings back to their original artwork.

—Syruss Flyte, *Electronic Arts*



## DISASTER RELIEF

The federal government of SimNation becomes very generous when Disaster strikes, even if it's you triggering the Disasters. This generosity trickles down in the form of an automatic grant in Disaster Relief Income that shows up in your Income ledger.

When you've been struck with a Disaster and the danger has passed, your Advisors will tally up the cost of the clean-up. This usually includes:

- Rebuilding cost for all civic buildings (Police Stations, Schools, etc.)
- Cost to clean up rubble-covered tiles, including zoned tiles
- Rebuilding cost of all infrastructure elements (Power Plants, Roads, Bridges, Subway Tunnels, etc.)

| Budget               |         | Expenditures |          | Income               |          |
|----------------------|---------|--------------|----------|----------------------|----------|
| Item                 | Amount  | Year to Date | Year End | Year to Date         | Year End |
| Debt Service         | \$0     | \$0          | \$0      | \$0                  | \$0      |
| Neighbor Deals       | \$0     | \$0          | \$0      | \$0                  | \$0      |
| Business Deals       | \$2,700 | \$4,400      | \$2,700  | \$4,400              | \$2,700  |
| Transit Fares        | \$0     | \$0          | \$0      | \$0                  | \$0      |
| Disaster Relief      | \$0     | \$2,572      | \$0      | \$2,572              | \$0      |
| Residential Tax Rate | \$4,222 | \$7,207      | \$4,222  | \$7,207              | \$4,222  |
| Commercial Tax Rate  | \$0     | \$0          | \$0      | \$0                  | \$0      |
| Industrial Tax Rate  | \$2,297 | \$3,972      | \$2,297  | \$3,972              | \$2,297  |
| Year to Date Income  |         | \$9,037      | \$19,274 | Year to Date Income  |          |
| Estimated Income     |         | \$7,408      | \$11,758 | Estimated Income     |          |
| Year to Date Expense |         | \$2,348      | \$7,516  | Year to Date Expense |          |
| Estimated Expense    |         | \$0          | \$0      | Estimated Expense    |          |
| Current Funds        |         | \$41,424     | \$41,424 | Current Funds        |          |
| End of Year Funds    |         | \$50,540     | \$50,540 | End of Year Funds    |          |

Fig. 26-7. After a Disaster, look to your Income ledger for a little help from the federal government.

If the sum of these figures is more than \$500, the beneficent overlords of the SimNation government will award *25 percent of total damage costs* as Disaster Relief. If you were able to sound the Early Warning System in the allotted time, the grant amount *increases to 35 percent*.

Disaster Relief funds are unrestricted, so you may spend them how ever you like. You are under no obligation to rebuild.

## DISASTERS (STANDARD EDITION AND *UNLIMITED*)

### FIRE

Fire is the most frequent Disaster. It occurs on its own and as a consequence of several other Disasters.

### CAUSES

Fire is generated by a random probability and in a random location. The fire will then search its immediate area for a flammable tile (trees or structures). If the fire can't find a flammable tile in a fixed amount of time, it burns out.



Fig. 26-8. Fire is the most common Disaster. It also occurs as a side effect of many other Disasters.

Even if the fire does find a flammable tile, the degree of flammability dictates whether it catches or not.

Thus, the causes of the Fire Disaster can be said to be high flammability ratings. Note that flammability can be reduced by watering all tiles.

## FREQUENCY

Fires occur occasionally as a consequence of other Disasters.

## PREMONITIONS

There are no premonitions of fire.

## PREVENTION

Fires can only be prevented by providing your city with a proper water supply, passing flammability-reducing Ordinances, and instituting total fire protection coverage.

## EARLY WARNING SYSTEM

The EWS has no effect in a Fire Disaster.

## DISPATCHING

If a fire burns outside a Fire Station precinct, or you want to put the flames out faster, you may dispatch fire units to the scene.

## EFFECTS

Fire causes buildings to burn and, eventually, explode. Once all is said and done, you'll be left with only a pile of ash that must be bulldozed before the tile can redevelop.

## HOW IT WORKS

Once a fire has started, the flammability of the burning tile dictates how fast the fire grows. Fire has four stages:

1. **Ignite**
2. **Small**
3. **Medium**
4. **Big**



Fig. 26-9. Only thorough fire coverage and total water service can you combat fires.



Once a big fire has burned for a while, the building explodes.

The level of fire coverage determines if the fire can be extinguished. If so, the fire disappears. If not, the building will be consumed by fire in a time proportional to its footprint.

Fire can spread to adjacent buildings, depending on their flammability and the level of fire protection, and can even jump over nonflammable tiles (Roads, bare earth, rubble, and water) to get to other buildings.

You can contain fires by bulldozing a multi-tile firebreak around flames. Already ignited buildings can't be demolished, but ones surrounding them can. No redevelopment occurs while a Disaster is in progress, so don't worry about de-zoning.



Fig. 26-10. If you haven't enough Fire Stations to put out a fire, bulldoze a large firebreak around the area. You can rebuild once the fire dies.

## ENDING

A Fire Disaster ends when all fires are extinguished.

## TORNADO CAUSES

Tornadoes occur randomly.

## FREQUENCY

Tornadoes are rare and usually occur in the summer.

## PREMONITIONS

Three News Ticker messages herald the arrival of a Tornado. The first two appear as generic weather reports but they'll be items that you haven't seen.

After two messages, your Advisor will want to see you about Tornado preparedness.

After a third message appears, the clock begins ticking until, shortly thereafter, a fourth message announces the arrival of the Tornado.

When the twister is imminent, all music and sound become still.

## PREVENTION

There is no way to prevent Tornadoes.

## EARLY WARNING SYSTEM

Once the fourth News Ticker message appears, announcing the arrival of the twister, you'll have a brief period in which to sound the alarm. If you do it in time, your Sims will flee the streets and you'll see a nice bonus on any Disaster Relief.

## DISPATCHING

Dispatching has no effect on Tornadoes themselves. If a building struck by a Tornado catches fire, however, you may want to dispatch a fire squad to it.

## EFFECTS

Tornadoes destroy structures in a very narrow band, leaving rubble (which must be demolished to allow redevelopment). A certain percentage of buildings leave behind burning rubble that can start fires in surrounding buildings.

If Power Lines or Power Plants are destroyed, blackouts will ensue.



Fig. 26-11. Tornadoes instantly destroy anything in their unpredictable path.

## HOW IT WORKS

Tornadoes drop in mostly random locales but tend to prefer to begin in low density areas. They generally move in a northeasterly direction, over land and water, demolishing anything in their narrow path.

## ENDING

Eventually, the Tornado will burn out or move off the map.

## EARTHQUAKE

### CAUSES

Earthquakes and the location of their fault lines are randomly generated.

### FREQUENCY

Quakes occur rarely.



## PREMONITIONS

Three News Ticker messages presage the arrival of an Earthquake. Audio clues after the third message include agitated horses in Agriculture zones and dogs in Residential neighborhoods.

## PREVENTION

Quake damage can be minimized by passing the Earthquake Resistance and Retrofitting Ordinance. This enactment renders your city immune from quakes rated “small” and reduces by one the width of the effect radius for medium and large quakes.

## EARLY WARNING SYSTEM

The EWS is ineffective in the event of an Earthquake.

## DISPATCHING

Dispatching has no effect on the Earthquake itself but may be necessary on the fires it can ignite.

## EFFECTS

Earthquakes can reduce surface buildings to rubble and ignite fires. They can also destroy Power Lines, transportation elements, and even underground elements such as Subway Tunnels and Water Pipes.

## HOW IT WORKS

The simulation randomly selects the location of a fault line in your city. It then determines the strength of the quake (small, medium, or large):

- Small: 3–4 on Van-Wobbler Scale, along a small portion of fault line and in a 1-tile radius
- Medium: 4.1–6.5 on Van-Wobbler Scale, along about half of the length of the fault line and in a 2-tile radius
- Large: 6.6+ on the Van-Wobbler Scale, along entire length of the fault line and in a 3-tile radius



Fig. 26-12. Breaks in utility networks and transportation routes are common aftereffects of Earthquakes.



When a quake starts, its effects start at the fault line and emanate outward in a fixed radius. The degree of the quake determines not only the size of the radius but also how much of the fault line will be involved in the quake. Only large Earthquakes utilize the entire fault line, but these are very rare.

Note that passing the Earthquake Resistance and Retrofitting Ordinance protects you completely from small Earthquakes and reduces the radius of medium and large quakes to 1 and 2 tiles, respectively.

## ENDING

Quakes equally impact structures and elements above and below the ground, so be sure to check your Subway Tunnels and Water Pipes when starting your clean-up.

## RIOT CAUSES

High unemployment and low aura combine to cause riots. If unemployment is above 8 and aura is below 50, a Riot could happen any time.

## FREQUENCY

Riots occur only occasionally but really depend on your city's aura and unemployment level.

## PREMONITIONS

News Ticker messages warn of rising agitation levels in sections of your city. If, however, you're paying attention to your city's data, Riots should come as no surprise.

## PREVENTION

Riots can be prevented by finding ways to lower unemployment and raise aura.



Fig. 26-13. The fault line of a quake distorts the terrain over it. You'll need to level this ground to build on it again.

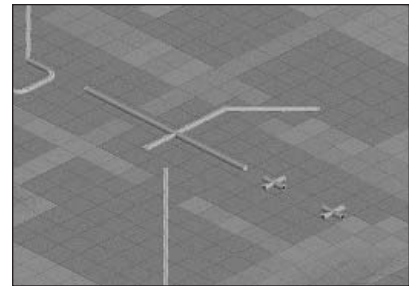


Fig. 26-14. Take a look underground to get a full survey of Earthquake damage.

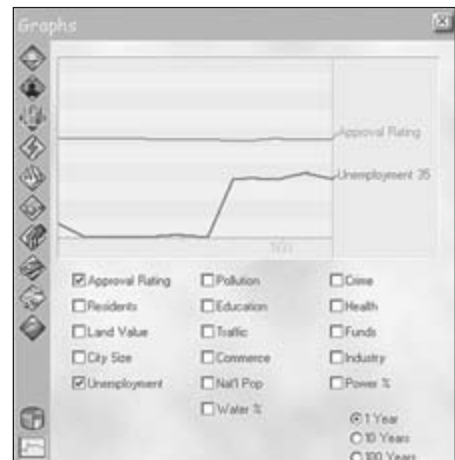


Fig. 26-15. Keep an eye on the unemployment level to foresee Riot scenarios.

**CROSS REFERENCE**

Aura-raising actions can be found in Chapter 16 and job creation is an element of Demand in Chapter 11.

## EARLY WARNING SYSTEM

The EWS has no effect in a Riot.

## DISPATCHING

If a Riot occurs within a police precinct and the level of coverage is sufficient to quell the Riot, it will be done automatically. If, however, the uprising occurs outside a police precinct or on an outer edge where protection is minimal, you will need to dispatch police. Rioters frequently start fires, potentially requiring you to dispatch firefighters.

## EFFECTS

Rioters damage buildings, reducing them to rubble, and start fires with Molotov cocktails.

## HOW IT WORKS

Rioters tend to appear in low or medium density Commercial neighborhoods. Visually, they appear as whirling dervishes of activity spitting debris in all directions.

Occasionally, a Molotov cocktail will emerge from the Riot and ignite whatever structure it hits.

Generally, however, Riots simply exert massive vandalism on surrounding buildings, sometimes drastic enough to cause destruction.

## ENDING

When all Riot outbreaks are quelled, the Disaster is over.

## UFO CAUSES

Alien invaders will take notice of your city if you have Farms, Clean Industry, a Spaceport, or Landmarks. If you have none of these things, you won't see UFOs.



Fig. 26-16. Riots almost always cause fires. Be ready with both Police and Fire Dispatches.

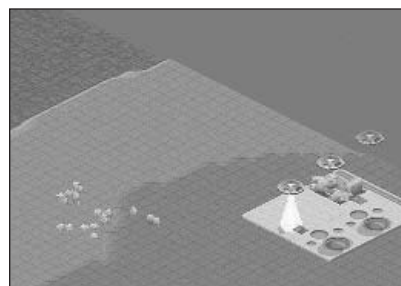


Fig. 26-17. Farms are a favorite target of intergalactic visitors. Often, they leave behind mysterious crop circles.

## FREQUENCY

UFOs are rare but this depends on your city's number of alien-attracting structures.

## PREMONITIONS

Three News Ticker warnings about strange goings on precede the appearance of a UFO. After two warnings, an Advisor will explicitly warn you. After the third warning, a large UFO passes through your line of sight as one or several UFOs “visit” your fair city.

## PREVENTION

There is no way to prevent UFO Disasters.

## EARLY WARNING SYSTEM

When you see the large UFO pass across the screen, you have a limited time in which to sound the EWS. If you do so, your Sims will be safely off the streets and you'll get a nice bonus in your Disaster Relief check after it's all over. If you're too late, you'll see your Sims being sucked into the great ships.

## DISPATCHING

Dispatching has no effect on UFO attacks. The fires they start, however, may require Fire Dispatch.

## EFFECTS

UFOs attack your city in several ways. Their force field “beams up” buildings, leaving behind only rubble. A secondary projectile attack rains down energy balls that destroy or ignite any structure they hit. Aliens can also abduct Sims from the street.



Fig. 26-18. UFOs will steal and destroy their favorite buildings.

## HOW IT WORKS

What the UFOs do when they visit you depends largely on the date:

- 1900–1949: Visitation but there's no attack.
- 1950–1974: Abduct Sims from the street but there's no attack.
- 1975–1999: Create crop circles on farms and abduct Sims but there's no attack.
- 2000+: Attack structures.



Until 2000, UFOs usually only visit one at a time. When they decide to attack, however, you will see up to 20 flying saucers.

UFOs prioritize their targets and will go after them in this order:

1. Landmarks
2. Spaceport
3. High Tech Industry
4. Power Plants

A UFO attack will normally destroy no more than 12 total buildings, so be sure to give them plenty of Landmarks and clean industry buildings to go after. UFOs will only destroy limited numbers of these (three and six, respectively) and will go after your Power Plants if they're thirsty for more.

## ENDING

When the UFOs destroy their maximum number of buildings or otherwise complete their visit, they teleport out of your city.

# UNLIMITED DISASTERS

In addition to the previous five Disasters, *SimCity 3000 Unlimited* comes with four additional Disasters for your, um, entertainment.

## TOXIC CLOUD CAUSES

The Toxic Cloud Disaster is caused primarily by high pollution and the presence of a Toxic Waste Disposal Plant.

## FREQUENCY

If your pollution is constantly high enough to initiate this Disaster, you should see it frequently (once every two years).

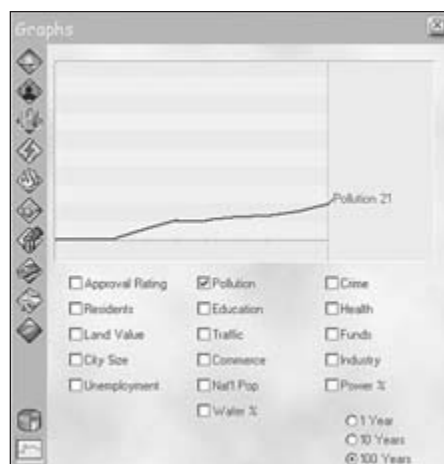


Fig. 26-19. Your pollution levels are a good indicator of whether you're risking a Toxic Cloud Disaster.

## PREMONITIONS

Once the simulator decides the time is ripe for this Disaster, you will see three News Ticker warnings about financial troubles and lax safety in your Industrial plants. After the second warning, an Advisor topic will warn you more explicitly.

## PREVENTION

You can prevent this Disaster, even if premonitions have begun, by reducing your pollution levels, demolishing your Toxic Waste Disposal Plant, or passing any or all anti-pollution Ordinances:

- Clean Industry Association
- Industrial Pollutant Impact Fee
- Industrial Waste Disposal Tax

Note that each of these Ordinances reduces demand for your Industrial zones. You might be better off with the Toxic Cloud.

## EARLY WARNING SYSTEM

Sound the EWS to get Sims out of the street before the acid rain comes pouring down to maximize your post-Disaster Relief grant from the feds.

## DISPATCHING

Dispatching has no effect in the face of a Toxic Cloud.

## EFFECTS

Toxic Clouds primarily spread noxious gas in their vicinity. Any building within 3 tiles of the Toxic Cloud will be abandoned. Often, the Toxic Cloud moves from its starting location, creating a path of abandoned shells.

If the Toxic Cloud lets loose with acid rain, any buildings or other structures doused by it will be destroyed. Civic buildings and trees will be reduced to ash as if burned.



Fig. 26-20. Gas and acid rain are the Toxic Cloud's twin dangers.



## HOW IT WORKS

Toxic Cloud Disaster is ruled by a score-keeping system. If all contributing conditions add up to 120 or more, the Disaster will be initiated. Contributing factors include:

- **Pollution levels:** Pollution level dictates the number of points pollution contributes to triggering the Disaster. To give you some perspective, global pollution at absolute maximum scores 675; the score for other pollution levels scales down from there.
- **Toxic Waste Conversion Plant:** This plant contributes 60 points, half the minimum required amount. If you see this Disaster coming, destroying your plant is the quickest way to avoid it.
- **Antipollution Ordinances:** Merely having any of the antipollution Ordinances on the books drops the score by 30 points per Ordinance.

The Toxic Cloud appears in Industrial areas with high pollution. If the Disaster is user-initiated and there is no polluting industry, the Toxic Cloud will begin in the lowest land value industrial area.

Remember that once the Disaster has been initiated, but before it has begun, you can avert it by reducing any of the elements in this equation.

## ENDING

Eventually, the Toxic Clouds dissipate or drift off the map.

## WHIRLPOOL

### CAUSES

The Whirlpool is randomly generated.

### FREQUENCY

Whirlpools are infrequent but not rare.

### PREMONITIONS

There are no premonitions for the Whirlpool Disaster.

### PREVENTION

Nothing can prevent a Whirlpool Disaster

## EARLY WARNING SYSTEM

The EWS has no effect in a Whirlpool Disaster.

## DISPATCHING

Dispatching won't do any good in a Whirlpool Disaster.

## EFFECTS

Whirlpools suck in and destroy boats and damage or destroy Seaports, Marinas, and Bridges.

## HOW IT WORKS

Whirlpools appear only in water in which boats can travel. Their actual location, however, is mostly random, strongly favoring places where they can do the most damage.

## ENDING

Eventually, the Whirlpool will dissipate or move off the map.

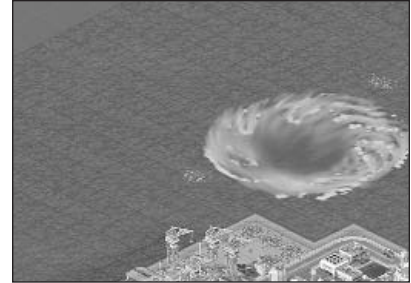


Fig. 26-21. Whirlpools tend to favor areas with water-bound structures.

## PLAGUE OF LOCUSTS

### CAUSES

The more Farms you have, the higher the probability of the Plague of Locusts. You must have at least one Farm for the Disaster to happen at all. Furthermore, the year must be 1920 or later so that an Airport for your Crop Duster is *possible*. There is, however, no requirement that an Airport actually be present.

### FREQUENCY

The more Farms you have, the more often the Disaster will occur. The minimum gap between attacks is 10 years. There's a 5 percent chance of an attack in any eligible month.

### PREMONITIONS

Two News Ticker messages foretell the arrival of the swarm in June of a given year. The swarm will arrive in August.

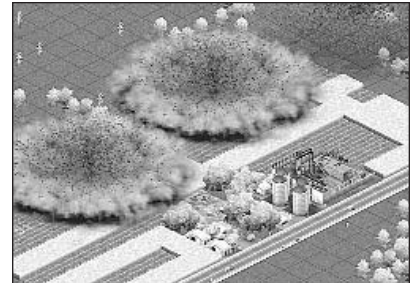


Fig. 26-22. Lots of Farms mean frequent insect attacks.





## PREVENTION

Locust attacks can't be prevented.

## EARLY WARNING SYSTEM

The EWS has no effect in a Plague of Locusts.

## DISPATCHING

To protect your Farms from locust attacks, you must dispatch Crop Dusters. During a Disaster, you'll have three Crop Dusters available.



### NOTE

No Airport is required to use Crop Dusters. If, by the way, you initiate the Disaster before the Disaster would normally begin to occur and before Airports are available (1920), you'll still be able to use Crop Dusters. They'll emerge from a random map edge.

Ideally, you should scramble your Crop Dusters and tell each one to dust a separate field. Choose the field based on the direction and distance of the swarms. Crop Dusters are a little slow, so give them plenty of time to get to a field.



### TIP

You may want to sacrifice one field to save the others.

Once a Crop Duster arrives at a field, it sprays it with pesticide, protecting a 5-tile radius from the dispatch pylon. You may, therefore, need more than one dusting to cover an entire field.

When the bugs arrive, they will begin to devour the field but will expire from the effects of the poison. If the entire field is dusted, all tiles will survive the attack.

If you dust the field while the swarm is feeding, it kills the swarm but you still lose the crop.

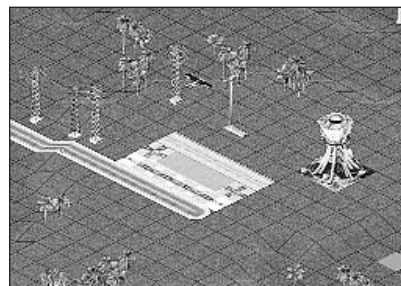


Fig. 26-23. If you're going to build several Farms, consider placing a very small Airport in a central location in your Agricultural region. Keep it far enough away that it won't pollute the Farms, but close enough to be an effective home for Crop Dusters.

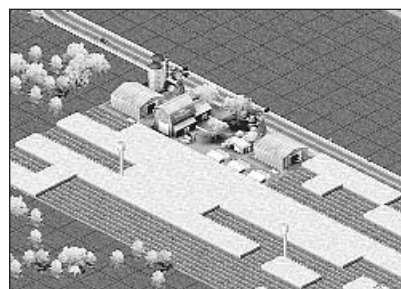


Fig. 26-24. Large fields require more than one dusting.

Having an Airport, though not required, is useful so you know exactly from where your Dusters will come. This makes it much easier to gauge how quickly they can reach a field. If you don't have an Airport, the planes emerge from random map edges.

## EFFECTS

Locusts devour Agriculture fields and strip trees (depriving them of their pollution-reducing effects). Ravaged fields must be demolished and won't redevelop until the following spring.

## HOW IT WORKS

The locust season runs from June to August. You'll get warnings of their arrival starting two months in advance. In August or so, a number of swarms (up to 20) proportional to your number of Farm tiles will emerge from the same side of the map and make a, pardon the expression, "beeline" for your valuable crops.

The locusts will head for the closest Farm. If the field has been dusted before they arrive, they will eat it anyway and die. If it is unprotected, they'll eat it and pick the next closest field and so on until there are no available fields left.

## ENDING

The Disaster ends if all swarms are killed, if there are no fields left to devour, or if the swarms have eaten 250 Farm tiles.

## SPACE JUNK

### CAUSES

After 1960, Space Junk falls at randomly selected times.

### FREQUENCY

Space Junk is a rarely occurring Disaster, mainly because there's not a thing you can do to stop it, and its effects are severe.

### PREMONITIONS

Two News Ticker messages warn of the breakup of a satellite followed by a warning from an Advisor.



## PREVENTION

There's nothing you can do to prepare for (insert dramatic music) Space Junk! You can, however, ensure against collateral damage by making sure your Fire Station coverage is sufficient.

## EARLY WARNING SYSTEM

As soon as you see the first bit of debris fall, sound the alarm. Actually, you have until the last piece of junk hits the ground before it's deemed too late to sound the EWS.

## DISPATCHING

Dispatching won't have any effect on the falling Space Junk but might be useful if any fires break out as a result.

## EFFECTS

Space Junk can destroy structures with impact damage. If the pieces are large enough, they can deform the terrain and obliterate underground elements (Subway Tunnels and Water Pipes). There is a random probability that a given piece of debris will start a fire.

## HOW IT WORKS

As the Disaster begins, pieces of debris begin randomly dropping from the heavens. They drop in at an angle, casting shadows on the terrain. When they hit, they can create any of a number of damage effects.

## ENDING

Eventually, debris will stop falling. This is one of the longest and most destructive Disasters around.



Fig. 26-25. As soon as the Disaster starts, hit the alarm to get your Sims off the streets.

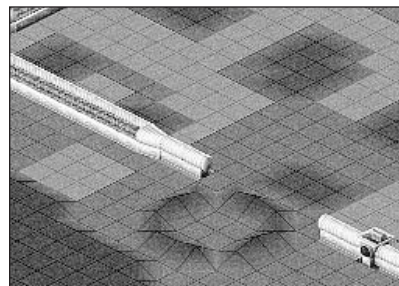


Fig. 26-26. When cleaning up after a Space Junk Disaster, remember to check Water Pipes and Subway Tunnels. Note the huge impact crater.



## ORDINANCES

### CLEAN INDUSTRY ASSOCIATION

- Department: City Planner
- Year Available: 1930
- Prerequisites: None
- Monthly Cost: \$0.0001 by Industrial tile
- Pro: Increases clean industry, decreases dirty industry
- Con: Costs money, decreases dirty industry

A small dues fee goes to the association dedicated to attracting nonpolluting industries to its member cities. This Ordinance simultaneously decreases the probability of dirty industry by 2 percent and raises the probability of clean industry by 2 percent. If your city isn't otherwise attractive to clean industry, the reduction of dirty industry could leave you with empty Industrial zones.

### EARTHQUAKE RESISTANCE AND RETROFITTING

- Department: City Planner
- Year Available: 1900
- Prerequisites: More than 300 buildings
- Monthly Cost: \$0.03 per building
- Pro: Minimizes Earthquake damage
- Con: Costs money

This measure allows you to fortify your city against Earthquake damage. With it on the books, your city takes no damage from small quakes and the damage radiates one less tile from the fault line in larger quakes.



## INDUSTRIAL POLLUTANT IMPACT FEE

- Department: City Planner
- Year Available: 1950
- Prerequisites: More than 500 developed Industrial tiles
- Monthly Income: \$0.004 per dirty industry tile
- Pro: Decreases dirty industry and pollution, earns money
- Con: Decreases dirty industry

This antipollution measure targets your city's dirty industry to offset the cost of any future clean-ups. You can, however, use this money for whatever purpose you wish as it appears as Ordinance Income in your Budget window. It decreases the probability of dirty industry by 4 percent and reduces pollution by 10 percent. Don't pass it if you haven't laid the foundation for attracting clean industry; if dirty industry flees with nothing to replace it, your Industrial zones will be deserted.

## INDUSTRIAL WASTE DISPOSAL TAX

- Department: Environment
- Year Available: 1950
- Prerequisites: None
- Monthly Income: \$0.0005 per Commercial and Industrial tile
- Pro: Generates Income, reduces garbage
- Con: Lowers demand for Commercial and Industrial

This garbage tax is applied to all Industrial and Commercial inhabitants of your city and the resulting revenue appears as Ordinance Income in your Budget window. It also results in a reduction in garbage by 5 percent. Unfortunately, it also inhibits demand for both Commercial and Industrial zones by 2 percent and 8.5 percent, respectively.



# REWARDS

A pat on the head and a “Job well done!” are nice, but there’s nothing like a tangible reward for your tireless and creative efforts, right? As your city grows and prospers, you will occasionally be presented with special unique structures that beautify and enrich your city. Many of these Reward buildings are a mixed blessing, bringing negative effects along with the positive. Others cost money to establish. In any event, you’ll never want to turn down a Reward building. No matter the cost, you wouldn’t want to spurn a tribute to your excellence, would you?

## EARNING REWARDS

Many Rewards are purely a function of population. Especially early on, reaching population milestones is a measure of success in and of itself.

Later, however, it takes more than growth to impress your Sims. For many of the most beneficial Rewards, you’ll have to do something extraordinary: demonstrate a commitment to Parks, dramatically raise your Sims’ Education Quotient, etc. The profiles below outline the prerequisites for each Reward.

## BUILDING EFFECTS

Most Reward buildings bring with them both positive and negative effects on surrounding zones. Most affect land value and many impact crime, pollution, and aura. Some even provide Demand Cap Relief or sway demand for certain RCI zones.

It’s important to know what side effects to expect when placing a Reward structure. With this in mind, the building effects for each Reward are outlined in the profiles below.



## ALTERNATE BUILDING SETS

*SimCity 3000 Unlimited* comes packed with alternate building sets representing Asia and Europe. Many Reward structures, thereby, have dramatically different looks depending on which set you decide to load.

All versions of the Reward buildings are pictured within their profiles below.



# REWARD STRUCTURE DIRECTORY

## CITY HALL

- Year Available: 1900
- Population: 20,000
- Size:  $3 \times 3$
- Price: \$0
- Aura Required: 100
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): 9,000/0/0
- Land Value Effect (Res./Com./Ind.): 10/25/0
- Air Pollution Effect (Effect/Radius): 450/10
- Water Pollution Effect (Effect/Radius): 450/5
- Crime Effect (Effect/Radius): -20/20
- Aura Effect (Effect/Radius): 3/20
- Jobs Created: 36



Fig. 27-1. City Hall



Fig. 27-2. Asian City Hall



Fig. 27-3. European City Hall

## COUNTRY CLUB

- Year Available: 1900
- Population: 125,000
- Size:  $5 \times 5$
- Price: \$25,000
- Aura Required: 100
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): 37,500/0/0
- Land Value Effect (Res./Com./Ind.): 20/25/0
- Air Pollution Effect (Effect/Radius): -2,500/15
- Water Pollution Effect (Effect/Radius): 2,500/15
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 1/15
- Jobs Created: 75



Fig. 27-4. Country Club



## COUNTY COURTHOUSE

- Year Available: 1900
- Population: 25,000
- Size:  $3 \times 3$
- Price: \$0
- Aura Required: 100
- Special Prerequisite: None
- Land Value Effect (Res./Com./Ind.): 20/25/0
- Air Pollution Effect (Effect/Radius): None
- Water Pollution Effect (Effect/Radius): None
- Crime Effect (Effect/Radius): -30/30
- Aura Effect (Effect/Radius): None
- Jobs Created: 135



Fig. 27-5. County Courthouse



Fig. 27-6. Asian County Courthouse



Fig. 27-7. European County Courthouse

## DEFENSE CONTRACTOR

- Year Available: 1900
- Population: N/A
- Size:  $5 \times 5$
- Price: \$25,000
- Aura Required: 100
- Special Prerequisite: None
- Land Value Effect (Res./Com./Ind.): -20/18/12
- Air Pollution Effect (Effect/Radius): 2,500/10
- Water Pollution Effect (Effect/Radius): 2,000/5
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): None
- Jobs Created: 500
- Demand Satisfaction: 1,750 (Ind)



Fig. 27-8. Defense Contractor



## GEYSER PARK

- Year Available: 1900
- Population: N/A
- Size:  $5 \times 5$
- Price: \$10,000
- Aura Required: 100
- Special Prerequisite: 35 city Parks
- Demand Cap Relief (Res./Com./Ind.): 25,000/0/0
- Land Value Effect (Res./Com./Ind.): 5/15/5
- Air Pollution Effect (Effect/Radius): -2,500/15
- Water Pollution Effect (Effect/Radius): -2,500/15
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 1/20
- Jobs Created: 50

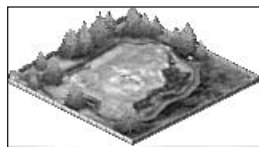


Fig. 27-9. Geyser Park



## HAUNTED HOUSE

- Year Available: 1900
- Population: 5,000
- Size:  $5 \times 5$
- Price: \$0
- Aura Required: 100
- Special Prerequisite: Month = October



Fig. 27-10. Haunted House

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REWARDS

## HISTORIC STATUE

- Year Available: 1900
- Population: 35,000
- Size: 1 × 1
- Price: \$0
- Aura Required: 100
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): 10,000/0/0
- Land Value Effect (Res./Com./Ind.): 18/18/5
- Air Pollution Effect (Effect/Radius): None
- Water Pollution Effect (Effect/Radius): None
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 1/8
- Jobs Created: 1



Fig. 27-11. Historic Statue



Fig. 27-12. Asian Historic Statue

## LIGHTHOUSE

- Year Available: 1900
- Population: 15,000
- Size: 2 × 2
- Price: \$5,000
- Aura Required: 100
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): 6,000/0/0
- Land Value Effect (Res./Com./Ind.): 12/25/0
- Air Pollution Effect (Effect/Radius): 240/10
- Water Pollution Effect (Effect/Radius): 240/5
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 2/15
- Jobs Created: 8



Fig. 27-13. Lighthouse



Fig. 27-14. Asian Lighthouse



Fig. 27-15. European Lighthouse



## MAYOR'S HOUSE

- Year Available: 1900
- Population: 5,000
- Size:  $2 \times 2$
- Price: \$0
- Aura Required: 100
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): 6,000/0/0
- Land Value Effect (Res./Com./Ind.): 23/20/2
- Air Pollution Effect (Effect/Radius): None
- Water Pollution Effect (Effect/Radius): None
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 2/10
- Jobs Created: 4



Fig. 27-16. Mayor's House



Fig. 27-17. Asian Mayor's House



Fig. 27-18. European Mayor's House

## MEDICAL RESEARCH CENTER

- Year Available: 1975
- Population: 80,000
- Size:  $3 \times 3$
- Price: \$75,000
- Aura Required: 100
- Special Prerequisite: Life Expectancy = 70
- Land Value Effect (Res./Com./Ind.): 10/10/0
- Air Pollution Effect (Effect/Radius): 540/10
- Water Pollution Effect (Effect/Radius): 720/5
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 2/15
- Jobs Created: 135



Fig. 27-19. Medical Research Center

## MILITARY BASE

- Year Available: 1900
- Population: 75,000
- Size:  $10 \times 10$
- Price: \$0
- Aura Required: 100
- Special Prerequisite: None
- Land Value Effect (Res./Com./Ind.): -20/12/12
- Air Pollution Effect (Effect/Radius): 50,000/20
- Water Pollution Effect (Effect/Radius): 50,000/10
- Crime Effect (Effect/Radius): 20/20
- Aura Effect (Effect/Radius): 1/20
- Jobs Created: 1,000
- Demand Satisfaction: 2,000 (Res.)



Fig. 27-20. Military Base

## PERFORMING ARTS CENTER

- Year Available: 1900
- Population: 100,000
- Size:  $2 \times 2$
- Price: \$0
- Aura Required: 100
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): 48,000/0/0
- Land Value Effect (Res./Com./Ind.): 12/20/0
- Air Pollution Effect (Effect/Radius): 200/10
- Water Pollution Effect (Effect/Radius): 200/5
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): 3/20
- Jobs Created: 40



Fig. 27-21. Performing Arts Center



Fig. 27-22. Asian Performing Arts Center



## SCIENCE CENTER

- Year Available: 1999
- Population: N/A
- Size:  $5 \times 5$
- Price: \$75,000
- Aura Required: 100
- Special Prerequisite: Education Quotient = 135
- Land Value Effect (Res./Com./Ind.): 10/10/0
- Air Pollution Effect (Effect/Radius): 1,500/10
- Water Pollution Effect (Effect/Radius): 2,000/5
- Crime Effect (Effect/Radius): None
- Aura Effect (Effect/Radius): None
- Jobs Created: 375



Fig. 27-23. Science Center

## SPACEPORT

- Year Available: 2050
- Population: 350,000
- Size:  $5 \times 5$
- Price: \$250,000
- Aura Required: 100
- Special Prerequisite: 50 Airport tiles
- Demand Cap Relief (Res./Com./Ind.): 750,000/750,000/750,000
- Land Value Effect (Res./Com./Ind.): -40/-25/10
- Air Pollution Effect (Effect/Radius): 31,250/20
- Water Pollution Effect (Effect/Radius): 25,000/8
- Crime Effect (Effect/Radius): 20/5
- Aura Effect (Effect/Radius): 2/10
- Jobs Created: 250



Fig. 27-24. Spaceport

## STADIUM

- Year Available: 1900
- Population: 150,000
- Size:  $5 \times 5$
- Price: \$75,000
- Aura Required: 100
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): 125,000/0/0
- Land Value Effect (Res./Com./Ind.): -20/14/0
- Air Pollution Effect (Effect/Radius): 1,500/15
- Water Pollution Effect (Effect/Radius): 2,000/15
- Crime Effect (Effect/Radius): 20/16
- Aura Effect (Effect/Radius): 2/20
- Jobs Created: 200



Fig. 27-25. Stadium

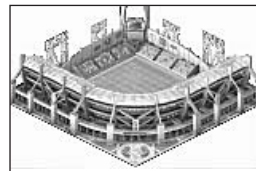


Fig. 27-26. Asian Stadium



Fig. 27-27. European Stadium

## STOCK EXCHANGE

- Year Available: 1900
- Population: 200,000
- Size:  $4 \times 4$
- Price: \$0
- Aura Required: 100
- Special Prerequisite: Treasury balance = \$50,000
- Land Value Effect (Res./Com./Ind.): -5/35/-4
- Air Pollution Effect (Effect/Radius): 800/10
- Water Pollution Effect (Effect/Radius): 800/5
- Crime Effect (Effect/Radius): 3/1
- Aura Effect (Effect/Radius): 1/15
- Jobs Created: 480
- Demand Satisfaction: 480 (Com.)



Fig. 27-28. Stock Exchange



Fig. 27-29. Asian Stock Exchange



Fig. 27-30. European Stock Exchange





## THEME PARK

- Year Available: 1900
- Population: 80,000
- Size:  $10 \times 10$
- Price: \$125,000
- Aura Required: 100
- Special Prerequisite: None
- Demand Cap Relief (Res./Com./Ind.): 200,000/0/0
- Land Value Effect (Res./Com./Ind.): -18/12/0
- Air Pollution Effect (Effect/Radius): 6,000/10
- Water Pollution Effect (Effect/Radius): 8,000/10
- Crime Effect (Effect/Radius): 16/14
- Aura Effect (Effect/Radius): 1/15
- Jobs Created: 400



Fig. 27-31. Theme Park

## UNIVERSITY

- Year Available: 1900
- Population: N/A
- Size:  $10 \times 10$
- Price: \$0
- Aura Required: N/A
- Special Prerequisite: Education Quotient = 105
- Land Value Effect (Res./Com./Ind.): 5/15/0
- Air Pollution Effect (Effect/Radius): 6,000/10
- Water Pollution Effect (Effect/Radius): 6,000/5
- Crime Effect (Effect/Radius): 15/10
- Aura Effect (Effect/Radius): 1/20
- Jobs Created: 500



Fig. 27-32. University



## WINTER WONDERLAND

- Year Available: 1900
- Population: 15,000
- Size:  $3 \times 3$
- Price: \$0
- Aura Required: N/A
- Special Prerequisite: Month = December, Park tiles = 30



Fig. 27-33. Winter Wonderland

## SECRET BUILDING

This structure isn't really a Reward. In fact, it's the exact opposite: You don't have to do *anything good* to receive it. You get it by cheating. Still, it's cool looking and provides some very tantalizing benefits.



### CROSS REFERENCE

See Appendix A for how to get the Castle.

## SIMCITY CASTLE (EASTER EGG)

- Year Available: 1900
- Population: N/A
- Size:  $4 \times 4$
- Price: \$0
- Aura Required: None
- Special Prerequisite: See Appendix A: Cheats
- Land Value Effect (Res./Com./Ind.): 100/100/100
- Air Pollution Effect (Effect/Radius): -96,000/30
- Water Pollution Effect (Effect/Radius): -80,000/25
- Crime Effect (Effect/Radius): -80/40
- Aura Effect (Effect/Radius): 30/30



Fig. 27-34. SimCity Castle



## HOLIDAYS

As the calendar flips by, important dates come and go. You, as the omnipotent Mayor, may be too busy for such trivialities as holidays, but your Sims live for any excuse to celebrate.

As a new treat in *SimCity 3000 Unlimited*, you can watch as your city transforms itself during special events. Some of these alterations occur automatically, some require some intervention from you. Some happen no matter what, others require some preconditions.

## FILLER TILES

During various holiday seasons, filler tiles change to reflect the season:

- Feb 1–14: Flower Stand
- June 16–July 4: Fireworks Stand
- October 1–31: Pumpkin Patch
- December 1–25: Christmas Tree Lot

## HALLOWEEN

Several changes occur around Halloween. First, once your city grows above 5,000 Sims, you'll be offered the above-mentioned Haunted House Reward. You can place this building anywhere you like; it has no proximity effects on its neighbors. It's just there for fun. In the streets around the Haunted House, you'll spy trick-or-treaters, Frankenstein's monsters, headless Sims, and pumpkin heads wandering hither and yon.

## THANKSGIVING

Sims love a parade. If the proper conditions exist, you'll see a parade in your streets, culminating with the arrival of Santa on his sleigh.

To get a parade, your city must meet the following conditions:

- Population: 10,000
- Commercial Buildings: 30
- Aura: 30
- Straight Consecutive Road Tiles: 6
- Years Since Last Parade: 3

The parade is offered beginning in August.

## CHRISTMAS

Ho, ho, ho. When December 1st rolls around, it's winter solstice celebration time! The first sign that the holidays have arrived is the replacement of some low-density Residential houses with Gingerbread Houses—they revert on December 31.

Once all the conditions are met, you'll be offered the Winter Wonderland Reward Building. To get it, your city must have:

- Population: 15,000
- Park Tile Count: 30

If your city qualifies, you'll be offered this building starting in October.

Finally, keep an eye on your streets for carolers and Santa himself.



# LANDMARKS

## LANDMARK FUNCTION

Nothing polishes off that cityscape like a beautiful and renowned building. When just any building won't do, drop a Landmark and hear your Sims ooh and ah.

The four score (or so) real-world Landmarks at your disposal have one purpose: to beautify and personalize your city. Just put them down and admire them. They don't need water, or power, or road access, just a prominent place to be seen by all.



### TIP

Use Landmarks to fill inaccessible places or gaps in your city. They can also serve as buffers between your clean Residential and Commercial zones and your polluting Industrial zones, providing a bit more aesthetically pleasing sight than 20 tiles of empty space.

You may only put down one of each kind of Landmark and only a total of 10 citywide. They can be built, maintained, and demolished for free.



### NOTE

The 10-Landmark limit has been removed in *SimCity 3000 Unlimited*.

Landmarks don't do several things. They don't:

- Enhance land value
- Produce good aura
- Absorb or emit pollution
- Cause or reduce crime
- Pay taxes
- Provide any Demand Cap Relief



Fig. 28-1. Landmarks like this add character and an international flair to your burgeoning burg.



Fig. 28-2. Many Mayors leave open space between their polluting zones and the rest of their city. Beautify these spaces with Landmarks.

In fact, but for one minor function (see following text), Landmarks don't do anything at all but stand there and look impressive. Still, there's nothing like having the Dome of the Rock or the Tower of London sitting in your town square. Some things just aren't about tax dollars and land value!



### TIP

**Place Landmarks on low value land. You don't want to waste good property on these tax-exempt structures without an overpowering aesthetic reason.**

The one thing Landmarks do is attract UFOs. These intergalactic menaces tend to favor Landmarks above even their other favorite targets (Farms and clean industry). If the aliens invade, chances are they'll make a beeline for your Landmarks.



Fig. 28-3. UFOs will usually head straight for your Landmarks. If you give them targets far outside your city, the invaders may spare your populated areas.



### CROSS REFERENCE

For more on the role of Landmarks in the UFO Disaster, see Chapter 26.



### TESTER TIP!

Tired of having UFOs go after important buildings in your city? Place a number of Landmark buildings away from the rest of your city. When UFOs next attack, they'll be attracted to the Landmarks, resulting in less damage to the rest of your city.

—Syruss Flyte, *Electronic Arts*



### NOTE

The standard version of *SimCity 3000* comes with 74 real-world Landmarks. *Sim City 3000 Unlimited* comes with these plus 25 bonus Landmarks. Standard edition owners can download many of these additional Landmarks from *SimCity.com*.



# DIRECTORY: *SIMCITY 3000* STANDARD EDITION



700 Louisiana—Houston, TX



Adler Planetarium—Chicago, IL



Alcatraz Complex East—  
San Francisco, CA



Alcatraz Complex West—  
San Francisco, CA



American Museum of Natural  
History—New York, NY



Arc de Triomphe—Paris, France



Art Institute of Chicago—Chicago, IL



Bank of America—San Francisco, CA



Bank Of China Tower—Honk Kong, China



Big Ben—London, England



Brandenburg Gate—Berlin, Germany



California Plaza (MaxisHQ)—  
Walnut Creek, CA



Capitol Records Building—  
Los Angeles, CA



Chartres Cathedral—Chartres, France

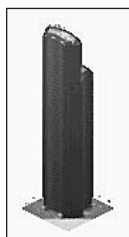


City Hall or Independence Hall—  
Philadelphia, PA





Coit Tower—San Francisco, CA



Columbia Seafirst Center—Seattle, WA



Conciergerie—Paris, France



Congresshalle—Berlin, Germany



Dome of the Rock—Jerusalem, Israel



Eiffel Tower—Paris, France



Empire State Building—New York, NY



Fernsehturm 2—Berlin, Germany



Gateway Arch—St. Louis, MO



Gedächtniskirche—Berlin, Germany



Grand Central Station—New York, NY



Great Pyramids—Giza, Egypt



Hagia Sofia—Istanbul, Turkey



Holsten Tor—Luebeck, Germany



Jefferson Memorial—Washington DC



La Tour Montparnasse—Paris, France



Lincoln Center—New York, NY



Lincoln Memorial—Washington DC



Maison de Radio France—  
Paris, France



Melbourne Cricket Ground—  
Melbourne, Australia



Notre Dame—Paris, France



Old North Church—Boston, MA



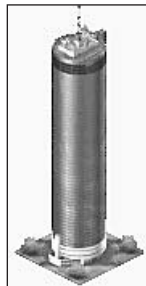
Old State House—Boston, MA



Palacio Real—Madrid, Spain



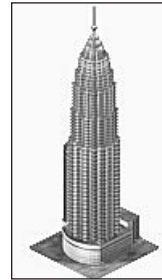
Parthenon—Athens, Greece



Peachtree Tower—Atlanta, GA



Petronas Twin Tower A—Kuala  
Lumpur, Malaysia



Petronas Twin Tower B—  
Kuala Lumpur, Malaysia



Pharos of Alexandria—Alexandria, Egypt



Place de la Concorde—Paris, France



Quincy Market/Faneuil—Boston, MA



Renaissance Center—Detroit, MI



Rockefeller Center—New York, NY



Rotes Rathaus—Berlin, Germany



San Francisco City Hall—  
San Francisco, CA



Schloss Neuschwanstein—  
Fuessen, Germany



Schloss Schoenbrunn—  
Vienna, Austria



Shedd Aquarium—Chicago, IL



Smith Tower—Seattle, WA



Smithsonian Castle—Washington DC



Sphinx—Giza, Egypt



St. Basil's Cathedral—Moscow, Russia



St. Paul's Cathedral—London, England



Statue of Liberty—New York, NY



Sydney Opera House—Sydney, Australia



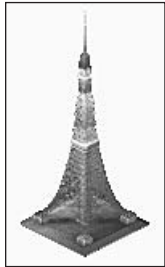
Taj Mahal—Agra, India]



Temple Expiatori de la Sagrada  
Familia—Barcelona, Spain



The Alamo—San Antonio, TX



Tokyo Tower—Tokyo, Japan



Tower of London—London, England



Trafalgar Square—London, England



United Nations—New York, NY



United States Capitol—Washington DC



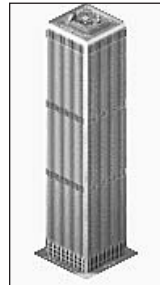
Washington Monument—Washington DC



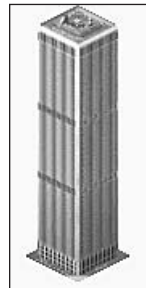
Westminster Abbey—London, England



White House—Washington DC



World Trade Center A—New York, NY



World Trade Center B—New York, NY

# DIRECTORY: *SIM CITY 3000 UNLIMITED*



Anglican Cathedral—  
Liverpool, England



Atlantis Condominium—Miami, FL



Broadcasting Building—  
Seoul, Korea



City Hall—Seoul, Korea



CKS Memorial Hall—Taipei, Taiwan



Daibutu—Tokyo, Japan



Dr. Sun Memorial Hall—Asia



Grand Hotel—Taipei, Taiwan



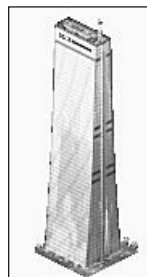
Helsinki Cathedral—Helsinki, Finland



Himeji Castle—Himeji, Japan



Kokkai—Tokyo, Japan



Korea Life Building—Seoul, Korea



Kunjungjon—Seoul, Korea



Liver Building—Liverpool, England



Liverpool Cathedral—Liverpool, England



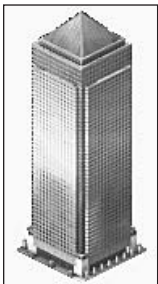
Nam Dae Moon—Seoul, Korea



Nam San Tower—Seoul, Korea



National Museum—Taipei, Taiwan



One Canada—London, England



Palace of Fine Arts—San Francisco, CA



Shitteno-ji—Osaka, Japan



St. Stephen's Cathedral—Vienna, Austria



Stockholm Royal Palace—Stockholm, Sweden



Taiwan Presidential Building—Taipei, Taiwan



The Duomo—Florence, Italy

# TIMELINE OF ALL DATE-ACTIVATED EVENTS

Even if you begin your city in the year 2000, you won't have access to all of *SimCity 3000*'s technological or legal developments. Unless you cheat, you'll have to wait until times call for new innovations. This list should make the waiting easier and help you to plan for momentous events before they happen.

All events initiated in 1900 are omitted here because you can't start a game before 1900.

**Table 29-1. Timeline**

| <i>Year</i> | <i>Development Available</i>              |
|-------------|---|
| 1910        | Subway                                    |
| 1915        | Conservation Corps Ordinance              |
| 1915        | Casino Deal available                     |
| 1920        | Bus                                       |
| 1920        | Incinerator                               |
| 1930        | Airport                                   |
| 1930        | Clean Industry Association Ordinance      |
| 1930        | Mandatory Water Meters Ordinance          |
| 1930        | Stairwell Lighting Ordinance              |
| 1935        | Water Treatment Plant                     |
| 1940        | Highway                                   |
| 1940        | Tire Recycling Ordinance                  |
| 1950        | Alternate Day Driving Ordinance           |
| 1950        | Clean Air Ordinance                       |
| 1950        | Electronics Tax Incentive Ordinance       |
| 1950        | Industrial Pollutant Impact Fee Ordinance |
| 1950        | Industrial Waste Disposal Tax Ordinance   |
| 1950        | Toxic Waste Disposal Plant Deal           |
| 1955        | Gas Power Plant                           |
| 1960        | Aerospace Tax Incentive Ordinance         |
| 1960        | Desalinization Plant                      |



## NOTE

Date triggered events may not occur precisely on the dates indicated. There will be a random variance of a few years in either direction. Thus, if something does not occur on schedule, wait a bit.

*Continued on next page*





*Continued from previous page*

| <b>Year</b> | <b>Development Available</b>        |
|-------------|-------------------------------------|
| 1960        | Free Clinics Ordinance              |
| 1960        | Leaf Burning Ban Ordinance          |
| 1960        | Nuclear Power Plant                 |
| 1960        | Paper Reduction Act Ordinance       |
| 1960        | Water Conservation Ordinance        |
| 1970        | Backyard Composting Ordinance       |
| 1970        | Electronics Job Fair Ordinance      |
| 1970        | GigaMall Deal                       |
| 1970        | Lawn Chemical Ban Ordinance         |
| 1970        | Mandatory Smoke Detectors Ordinance |
| 1970        | Neighborhood Watch Ordinance        |
| 1970        | Power Conservation Ordinance        |
| 1970        | Recycling Center                    |
| 1975        | Medical Research Center             |
| 1980        | Biotech Tax Incentive Ordinance     |
| 1980        | Carpool Incentive Ordinance         |
| 1980        | Mandatory Car Smogging Ordinance    |
| 1980        | Public Access Cable Ordinance       |
| 1980        | Trash Presort Ordinance             |
| 1980        | Wind Power Plant                    |
| 1985        | Solar Collector                     |
| 1990        | Community CPR Training Ordinance    |
| 1990        | Landfill Gas Recovery Ordinance     |
| 1990        | Nuclear Free Zone Ordinance         |
| 1990        | Public Smoking Ban Ordinance        |
| 1999        | Science Center                      |
| 2000        | Waste-to-Energy Incinerator         |
| 2020        | Microwave Power Plant               |
| 2050        | Fusion Power Plant                  |
| 2050        | Spaceport                           |

# SPECIAL REPORT: ATTRACTING CLEAN INDUSTRY

Time marches on and so does technology. As the years fly by, your city will have the opportunity to gradually trade in its filthy, low-value dirty industry for nonpolluting, potentially lucrative clean industry.

Clean industry gets you:

- Lower pollution
- Higher land value
- Increased tax revenue
- Lowered/eliminated NIMBY effect of Industrial zones
- Improved transportation by allowing you to place Industrial zones near Residential zones

Perhaps not every mayor will want this loftiest of all rewards, but most pursue it doggedly. It isn't easy, and trying to rush things can put your city in real trouble.

With this guide, you will know what to do to get clean industry as quickly as possible, how to lay the groundwork and maximize the probability of turning your city into the next Silicon Valley or Multimedia Gulch.

Consider these three elements for luring clean industry:

- 1. Time**
- 2. Education**
- 3. Ordinances**

## TIME

The development of clean industry is directly linked to the year.



Fig. 30-1. Sparkling clean industry is its own reward—nice to look at and infinitely beneficial to your city.



In 1900, for instance, there really were no “clean” industries. In our own late 20th/early 21st century society, the world is still full of smoke-belching facilities, but not to the extent our parents knew. Will there come a day when heavy, dirty industry will simply cease to exist, totally supplanted by clean, high-tech industry? For the purposes of *Sim City 3000*, yes.

## MINIMUM AND MAXIMUM CLEAN INDUSTRY PERCENTAGES

Each year, starting with 1900 and culminating in 2200, dictates a minimum and a maximum proportion of clean industry to dirty industry. There is only the maximum proportion, however, if you've maximized your Sim's Education Quotient (see the following note).



### NOTE

Maximum clean industry percentage stops increasing when it hits 100 percent in year 2200. Minimum clean industry percentage, on the other hand, stops increasing when it reaches 1 percent in year 2100. Thus, after year 2100, you are guaranteed at least 1 percent clean industry even if you've passed no Ordinances and your Sims are not very smart.

Technological limitations in each year prevent total conversion to clean industry until the year 2200. Until then, there will still be some proportion of dirty industry.



### TIP

If your city's EQ is very high and the year is around 2200, eliminate any remaining dirty industry with a little hands-on demolition. Bulldoze any dirty industry structures until clean industry buildings replace them. If either EQ or year are too low, however, this won't work reliably.

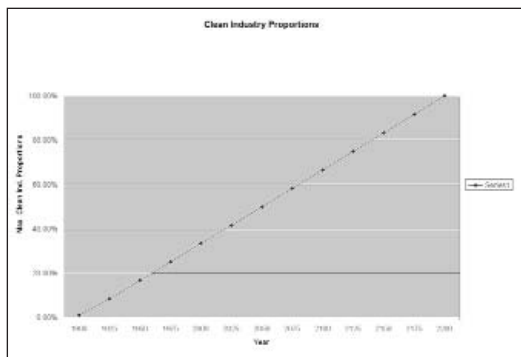


Fig. 30-2. This graph shows the proportion of clean to dirty industry over time.



Fig. 30-3. Even well into the 22nd century, there will be a few smoke-belchers in your Industrial zones. They, however, should be sparse enough to cause little local pollution effect.

In, for example, 1900, there is very little in the way of high technology. Therefore, only 0–1 percent of your Industrial buildings can potentially be clean. Not really impressive yet.

By 2050, high tech is big business. Therefore, 0.75 percent–50 percent of your Industrial buildings can be clean industry. However, *at least* half of your Industrial structures will still be dirty industry.



#### **NOTE**

Not all clean industry is actually high tech as we think of it. Several very desirable Industrial structures are simply nonpolluting. The reason these plants can do their jobs so cleanly is due to technological developments in pollution control. The basic rule is, if it looks clean, it's clean industry.

Finally, in 2200, you'll evolve out of the reliance on old-fashioned heavy industry and your city could, if EQ is at maximum, feature nothing but clean industry.

The point is, no matter what you do, you can only see so much clean industry before 2200. In fact, the table below shows precisely how far you can go:



Fig. 30-4. You don't normally think of a Car Factory or a Mill as "high tech" but it is clean industry. Not all clean industry makes software and electronics.

**Table 30-1. Clean Industry Proportions by Year**

| <i>Year</i> | <i>Min. Proportion</i> | <i>Max. Proportion</i> |
|-------------|------------------------|------------------------|
| 1900        | 0%                     | 1%                     |
| 1925        | 0.125%                 | 8.33%                  |
| 1950        | 0.25%                  | 16.66%                 |
| 1975        | 0.375%                 | 25%                    |
| 2000        | 0.5%                   | 33.33%                 |
| 2025        | 0.625%                 | 41.66%                 |
| 2050        | 0.75%                  | 50%                    |
| 2075        | 0.875%                 | 58.33%                 |
| 2100        | 1%                     | 66.66%                 |
| 2125        | 1%                     | 75%                    |
| 2150        | 1%                     | 83.33%                 |
| 2175        | 1%                     | 91.66%                 |
| 2200        | 1%                     | 100%                   |

**NOTE**

Maximum proportions can be *reached* by increasing your Sims' EQ and can be *raised* by passing various Ordinances.

Don't, therefore, push too hard for clean industry in cities beginning in 1900. You won't see any significant development for a while and it will take some time to boost your Sims' EQ anyway.

## EDUCATIONAL QUOTIENT

To work in the booming world of high technology, your Sims are going to have to be very smart.

You already know that clean industry proportions are expressed as a range of numbers. Where your city falls in these ranges depends on the educational level of your Sims.

**CROSS REFERENCE**

To learn about education, study Chapter 21.

To reach the maximum proportions, your Sims in the workforce must be as educated as possible. This is not say that your Sims must be at maximum EQ in year one; frankly that's impossible anyway.

Rather, to achieve the maximum clean industry proportion, the ratio of your Sims' current workforce EQ to maximum EQ must be the same or better than the maximum clean industry proportion. Or, in formula form, you will see maximum clean industry proportion if:

$$(\text{Current EQ} \div 150) \leq \text{Maximum Clean Industry Proportion}$$

Let's put that another way. If the year is 2050, then the maximum clean industry proportion is (from Table 30-1) 50 percent. To achieve this proportion in your city, your Sims must have an EQ of at least 75.

**NOTE**

The actual numbers aside, the faster you get your Sims to maximum EQ, the better your chances of landing the maximum clean industry proportions. Just to be sure, start a complete educational system as soon as you can afford it—start adding essential educational structures after your population reaches about 10,000.

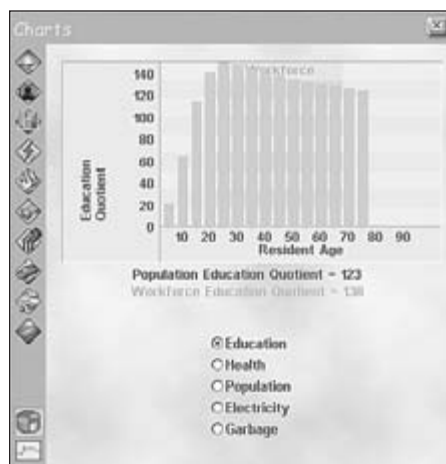


Fig. 30-5. Consult your Education Graph to see how you're doing in EQ.

## MAXIMIZING EQ

Education Quotient is a function of many influences. In short, however, you can achieve maximum EQ by:

- Consistently maintaining Schools below full capacity (1 School for every 3,000 students)
- Consistently maintaining Colleges below full capacity (1 College for every 7,500 students)
- Providing enough Libraries for your population (1 Library for every 41,000 Sims)
- Providing enough Museums for your population (1 Museum for every 83,000 Sims)
- Passing all EQ-boosting Ordinances as soon as they're available
- Funding your Education Department at 110 percent
- Maximizing Life Expectancy by maintaining your Hospitals at a grade of A

Providing this level of health and educational support is admittedly expensive, but given the amount of time it takes to foster truly brilliant Sims, it pays to get an early start.



### TESTER TIP!

Eventually your city progresses far enough to start developing clean industry. Unfortunately, your clean industries are just as likely to become abandoned as your dirty ones when Industrial Demand slacks off (as it occasionally does).

**Solution:** when you spot a good clean industry building (such as the SimMars Research & Testing Facility or the large Car Factory), declare it Historical. This prevents the building from redeveloping as dirty industry after suffering an abandonment.

—Syruss Flyte, *Electronic Arts*

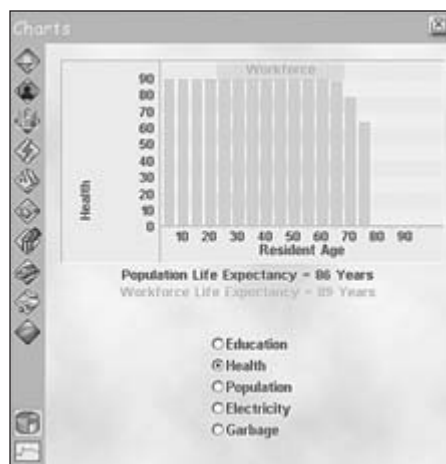


Fig. 30-6. The Life Expectancy of your Sims is important to education. Watch the Health Chart to check your progress.



Fig. 30-7. Mark clean industry buildings Historical to preserve them and prevent them from reverting to dirty industry.



## ORDINANCES

Certain Ordinances can affect your city's quest for Clean Industry.

Many of these Ordinances have the power to raise the maximum clean industry proportions.

- Aerospace Tax Incentive
- Biotech Tax Incentives
- Clean Industry Association
- Conservation Corps
- Electronics Job Fair
- Electronics Tax Incentive
- Public Access Cable

For example, passing the Electronics Tax Incentive in its first year available, 1950, will raise the proportion from 16.66 percent to 19.66 percent.

Some of the Ordinances, however, reduce demand for dirty industry.

- Clean Air
- Industrial Pollutant Impact Fee
- Clean Industry Association

Reducing demand for dirty industry is not the same as encouraging clean industry. At some point, do both to make room for a large influx of clean industry. Until, however, you lay the positive groundwork for clean industry (high EQ, clean-encouraging Ordinances in place) there may be nothing to replace the departing dirty industry when it flees. That means abandoned zones, and that's trouble.

Wait until you can get your EQ ratio ( $\text{Current EQ} \div 150$ ) above maximum clean industry proportion before passing these Ordinances.



### TIP

**Beware the Clean Industry Association Ordinance. It is the one Ordinance that both encourages clean industry and discourages dirty industry.**

For quick reference, consult the table below for the effects of each Ordinance.



**Table 19-3. Ordinance Effects**

| <i>Ordinance</i>                | <i>Clean Industry Effect</i> | <i>Dirty Industry Effect</i> |
|---------------------------------|------------------------------|------------------------------|
| Aerospace Tax Incentive         | +3%                          | —                            |
| Biotech Tax Incentives          | +4%                          | —                            |
| Clean Air                       | —                            | -3%                          |
| Clean Industry Association      | +2%                          | -2%                          |
| Conservation Corps              | +4%                          | —                            |
| Electronics Job Fair            | +5%                          | —                            |
| Electronics Tax Incentive       | +3%                          | —                            |
| Industrial Pollutant Impact Fee | —                            | -4%                          |
| Public Access Cable             | +2%                          | —                            |

## ORDINANCE DESCRIPTIONS

### AEROSPACE TAX INCENTIVE

- Department: City Planner
- Year Available: 1960
- Prerequisites: Must have Airport
- Monthly Cost: \$0.0001 per clean industry tile
- Pro: Increases demand for clean industry
- Con: Costs money

Attract the lucrative aerospace industry to your city by offering them juicy tax subsidies. These subsidies show in your budget under Ordinance expenditures. In effect, adds 3 percent to probability of clean industry developing.

### BIOTECH TAX INCENTIVE

- Department: City Planner
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: \$0.0001 per clean industry tile
- Pro: Increases demand for clean industry
- Con: Costs money



Attract the biotechnology industry to your city by offering them big tax subsidies. These subsidies show in your budget under Ordinance expenditures. In effect, this incentive adds 4 percent to the probability of clean industry developing.

## CLEAN AIR

- Department: Environment
- Year Available: 1950
- Prerequisites: None
- Monthly Cost: §0.0001 per Sim
- Pro: Lowers pollution, discourages dirty industry
- Con: Costs money, discourages dirty industry

This environmental Ordinance reduces global air pollution by 10 percent and chokes probability of dirty industry by 3 percent. The latter effect can be positive if your city has a high probability of attracting clean industry. Otherwise, this Ordinance will scare away the only kind of industry you have, the dirty kind, leaving you with empty Industrial zones.

## CLEAN INDUSTRY ASSOCIATION

- Department: City Planner
- Year Available: 1930
- Prerequisites: None
- Monthly Cost: §0.0001 by Industrial tile
- Pro: Increases clean industry, decreases dirty industry
- Con: Costs money, decreases dirty industry

A small dues fee goes toward attracting nonpolluting industries to its member cities. This Ordinance simultaneously decreases the probability of dirty industry by 2 percent and raises the probability of clean industry by 2 percent. If your city isn't otherwise attractive to clean industry, reducing dirty industry could leave you with empty Industrial zones.

## CONSERVATION CORPS

- Department: City Planner
- Year Available: 1915
- Prerequisites: None
- Monthly Cost: \$0.0003 per dirty industry tile
- Pro: Increases clean industry, decreases crime, water pollution, and garbage output
- Con: Costs money

The Conservation Corps beautifies the city by picking up trash, funded through a monthly fee paid by your town's polluters. The probability of clean industry is raised by 4 percent while global crime is reduced by 8 percent. It also reduces water pollution and garbage by 7 percent.

## ELECTRONICS JOB FAIR

- Department: City Planner
- Year Available: 1970
- Prerequisites: None
- Monthly Cost: \$0.0001 per Residential tile
- Pro: Increases clean industry
- Con: Costs money

Volunteer to pay for an annual job fair for the electronics industry. This event makes your city more attractive to clean industry to the tune of 5 percent increased probability.

## ELECTRONICS TAX INCENTIVE

- Department: City Planner
- Year Available: 1950
- Prerequisites: None
- Monthly Cost: \$0.0001 per clean industry tile
- Pro: Increases clean industry
- Con: Costs money

Encourage the immigration of nonpolluting industry by passing this tax subsidy, available to any clean industry that moves to your city. Increases probability of clean industry by 3 percent.



## INDUSTRIAL POLLUTANT IMPACT FEE

- Department: City Planner
- Year Available: 1950
- Prerequisites: More than 500 developed Industrial tiles
- Monthly Income: \$0.004 per dirty industry tile
- Pro: Decreases dirty industry and pollution, earns money
- Con: Decreases dirty industry

This anti-pollution measure targets your city's dirty industry to offset the cost of any future clean-ups. You can, however, use this money for whatever purpose you wish since it appears as Ordinance Income in your Budget window. This decreases the probability of dirty industry by 4 percent and reduces pollution by 10 percent. Don't pass it if you haven't laid the foundation for attracting clean industry; if dirty industry flees with nothing to replace it, your Industrial zones will be deserted.

## PUBLIC ACCESS CABLE

- Department: City Planner
- Year Available: 1980
- Prerequisites: None
- Monthly Cost: \$0.0002 per Sim
- Pro: Increases clean industry
- Con: Costs money

This valuable educational service tells the nonpolluting communications industry that your city would be a good home. The probability of clean industry developing is, therefore, boosted by 2 percent.



### CROSS REFERENCE

For a pictorial directory of clean industry structures, see Appendix B.

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SPECIAL REPORT:  
ATTRACTING CLEAN INDUSTRY

# PART 5: UNLIMITED CITY CREATION

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Most everything we've covered up to this point, with noted exceptions, concerns items common to both *SimCity 3000* standard edition and *SimCity 3000 Unlimited*. This part, however, highlights what's unique about *SimCity 3000 Unlimited*—the changes, features, and tools that make it the new pinnacle of the *SimCity* franchise.

In this section you'll find:

- An overview of new features in *SimCity 3000 Unlimited*
- Walkthroughs of all 10 Scenarios
- A bonus insight into *SimCity*'s newest tool, the Scenario Creator
- Tips on using the latest incarnation of the Building Architect
- A peek inside the *SimCity* online community at *SimCity.com*

## NEW FEATURES OF *SIMCITY 3000 UNLIMITED*

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NEW FEATURES OF  
*SIMCITY 3000 UNLIMITED*

### NEW IN *SIMCITY 3000 UNLIMITED*

So, you're wondering, what's new about *SimCity 3000 Unlimited*?

#### EXPANDED TERRAIN EDITOR

The Terrain Editor now includes all Landscaping Tools, which allow you to zoom, rotate, Create Surface Water, Plant Trees, Lower Terrain, Raise Terrain, or Level Terrain. And it's all free!

These new tools are discussed in detail in Chapter 7.

#### CHANGES TO THE USER INTERFACE

*SimCity 3000 Unlimited* makes getting information even easier and more intuitive. For example, the Query button now appears right next to the Simulation Speed Control and the Layer Views button is next to the Navigation Map.

Consult your manual for details.

## ALTERNATE BUILDING SETS

Two Alternate Buildings Sets (with more than 200 brand new buildings) reflecting the architecture of Asia and Europe are included in *SimCity 3000 Unlimited*. You can start your new city with whichever set suits you.

You can switch your city between the three Building Sets at any time through the City Options menu.

Alternate non-RCI structures (Schools, Police Stations, etc.) are shown throughout Part 4.

Appendix B contains the names and images of every RCI building in all three sets.

## ALTERNATE LANDSCAPES AND TREES

Five landscape styles and five different kinds of trees let you customize the terrain. As with the Alternate Building Sets, these changes can be made through the New Game or City Options menu.

## CITY OPTIONS MENU

The new City Options menu enables you to easily insert User-Made Buildings, or change landscape, tree style, or Building Set anytime you like.

## NEW QUERY BOX BUTTON

A new button in the Query box provides an easy, in-game system for incorporating User-Made Buildings.

## REASON FOR ABANDONMENT/ LACK OF DEVELOPMENT

Queries on abandoned buildings and undeveloped zones now tell you why the object has been vacated or why it hasn't been developed. There is a lag in how often this information updates. The reasons, therefore, can be misleading. If the read-out says "Planets not Aligned" or "Lack of Chocolate Sprinkles" it means that the tile hasn't been polled recently.





## FOUR NEW DISASTERS

In addition to the five original *SimCity 3000* Disasters, *SimCity 3000 Unlimited* adds four new insidious mishaps: Toxic Cloud, Plague of Locusts, Space Junk, and Whirlpool.

Covered in Chapter 26.

## DISPATCH CROP DUSTERS

For every new Disaster comes a new solution. Locusts can be counteracted only with a heavy dose of good old chemistry dropped from a biplane. When under insect attack, use the Dispatch Crop Dusters button to save the day. Covered in Chapter 26.

## SNAPSHOTS

*SimCity 3000 Unlimited* offers new tools (found in the Adjust & Review menu) for taking and viewing snapshots of your city. Now it's even easier to take pictures and proudly display your city on the SimCity Exchange.

## DIRECT LINK TO *SIMCITY.COM*

A new button on the toolbar (above the RCI indicator) connects you directly to *SimCity.com*. You must have Internet access. Now you never have to leave the game to go to the heart of the *SimCity* community.

## SCENARIOS

Scenarios are back! You loved them in *SimCity 2000*, now you can play 10 new ones, ranging in difficulty and length. Each is outlined in detail in Chapter 32.

## HOLIDAYS

Holiday features provide automatic changes to your cities during important holidays. There are also two new holiday-themed Reward Structures (Haunted House and Winter Wonderland are described in Chapter 27), and parades introduced via Petitioners.



## NEW LANDMARKS

New real-world Landmarks enrich your city with realistic grandeur. Plus, they make great UFO targets! Check out Chapter 28 for details.

As another bonus, the 10-Landmark limit in *SimCity 3000* has been lifted in *SimCity 3000 Unlimited*.

## BUILDING ARCHITECT PLUS

The all-new *SimCity 3000* Building Architect Plus makes constructing your own User-Made Buildings easier than ever. See your manual and Chapter 34.

## SCENARIO CREATOR

The Scenario Creator empowers even nonprogrammers to create their own challenging or even fiendish scenarios for themselves or their fellow mayors.



# SCENARIOS

They're back.... You loved them in *SimCity 2000*, now you can love them even more in *SimCity 3000 Unlimited*. Scenarios have returned and they're more challenging and engrossing than ever.

For those new to *SimCity*, Scenarios are pre-made cities that you must reshape to fit a set of goals. Several events and consequences will occur automatically, depending on what you do as you play. For instance, you could be assigned to solve the traffic problem in and around Washington D.C. by building a Subway System and new Highways.

Well, none of the Scenarios that ship with *SimCity 3000 Unlimited* are as difficult as that, but you get the idea. The truth is that the possibilities are endless: not only do you get the 10 Scenarios that come with *SimCity 3000 Unlimited*, but you can download Scenarios made by your fellow players at the SimCity Exchange ([www.simcity.com](http://www.simcity.com)) and even create your own.



## CROSS REFERENCE

For more on the Scenario Creator, see Chapter 33.

## BASIC SCENARIO PLAY

Though every Scenario is different, you can always rely on some general principles:

- Don't be afraid to demolish. When in doubt, tear it down. Roads must go through; Police Stations must be built.
- Don't be afraid to be sloppy. Unlike your usual city-building adventures, neatness and finesse don't count. Your job is to achieve goals, not create a lush, living city. If you cut off Road access to a neighborhood, oh well. As long as it doesn't factor into your goals, it's not really important.
- Aesthetics don't count. When building your own city, a good mayor will sweat over the beauty of his or her town. In Scenarios, it's much more important to get the job done. Would you replace two Parks next to Big Ben with Fire Stations? If you were trying to ensure it didn't burn down, yes you would.
- Take loans. Some Scenarios give you enough money to do the job, but most don't. Because Scenarios don't last long enough for it to matter, make a point of assuming the maximum possible debt (\$250,000) right off the bat.

- Don't sweat the budget. If you need to bring in Sims, lower your taxes to 0 percent. There are no style points for keeping a surplus in Scenarios.
- Raise land value with Parks and Surface Water. If you use both of these methods, you shouldn't need to do much more.

## ORDINANCES

You will frequently have to pass Ordinances to achieve goals. Here is a general breakdown of what's available and for what purpose:

- Reduce Crime: Conservation Corps, Junior Sports, Legalized Gambling (repeal) Neighborhood Watch, and Youth Curfew
- Reduce Pollution: Clean Air, Clean Industry Association, Conservation Corps, Industrial Pollutant Impact Fee, Industrial Waste Disposal Tax, Landfill Gas Recovery, Lawn Chemical Ban, Leaf Burning Ban, and Mandatory Car Smogging
- Increase Clean Industry: Aerospace Tax Incentive, Biotech Tax Incentive, Clean Industry Association, Conservation Corps, Electronics Job Fair, Electronics Tax Incentive, Public Access Cable
- Reduce Flammability: Leaf Burning Ban, Mandatory Smoke Detectors
- Reduce Garbage: Backyard Composting, Conservation Corps, Industrial Waste Disposal Tax, Leaf Burning Ban (repeal), Paper Reduction Act, Tire Recycling, and Trash Presort

## A BETTER BETTERFELD

- Level: Intermediate
- Approximate Playing Time: 1 hour
- Description: Rebuild a city devastated by years of abuse.
- Pause: Yes
- Begins: 1/5/2072
- Duration in Sim Time: 5 years





# WALKTHROUGH

Betterfeld needs a makeover. Your job is to turn it from an Industrial wasteland into a green paradise. To meet this environmental challenge, you have to fulfill each of these goals:

1. **Eliminate access to the Landfill and relocate industry away from the general population.**
2. **Enact legislation to reduce pollution and garbage and replace existing utilities with cleaner plants.**
3. **Raise land value.**

## ELIMINATE ACCESS TO THE LANDFILL AND RELOCATE INDUSTRY

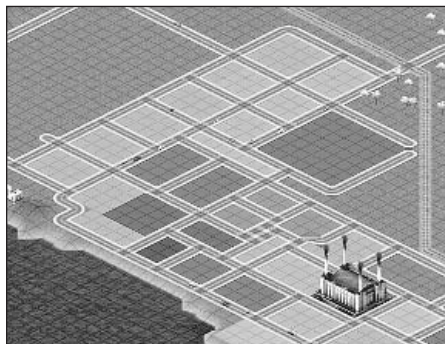


Fig. 32-1. First, get all of the Industrial zones out of the riverside area. To do this, collapse zoned buildings in the View City Layers menu. Next, demolish and dezone anything yellow. Rebuild these zones somewhere else on the map.

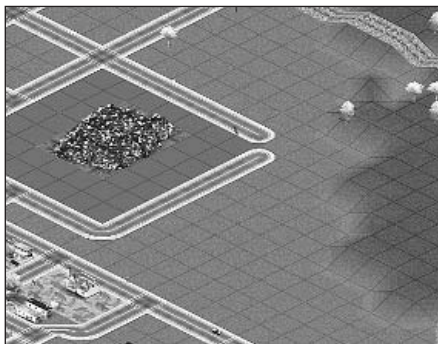


Fig. 32-2. To decommission the Landfill, first move the Rails to the east so they run up onto the hill.

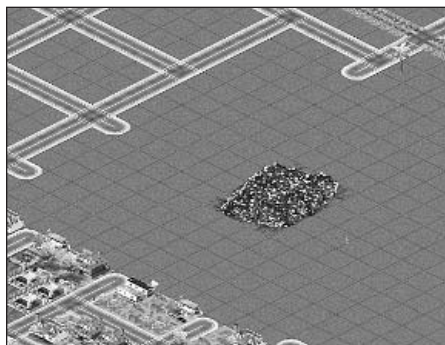


Fig. 32-3. Next, dezone the unused Landfill tiles and bulldoze all Roads and zones in a five-tile radius.

With that, the first goal is achieved. Don't forget to find somewhere else to dump your garbage. A Neighbor Deal sounds quite good right now.

## ENACT LEGISLATION TO REDUCE POLLUTION AND GARBAGE AND REPLACE EXISTING UTILITIES WITH CLEANER PLANTS

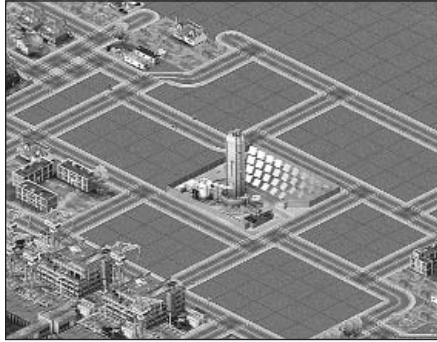


Fig. 32-4. First, replace all three Coal Power Plants with Solar Power Collectors.



Fig. 32-5. To complete your collection of the latest in clean utilities, set up (anywhere in the city) a Water Treatment Plant and a Recycling Center.

Enact all of the Ordinances under the Environmental Advisor heading in the Ordinances window. You've now laid the technological and legal foundation for a clean city.

## RAISE LAND VALUE

Raising land value calls for the usual bag of tricks you've used so many times as Mayor of your own city. First and foremost, keep the new Industrial zones far away.

Be sure to pass the land-value-enhancing Homeless Shelter Ordinance.

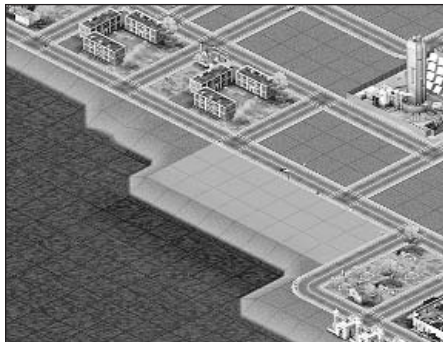


Fig. 32-6. Demolish the polluting Seaport.



Fig. 32-7. Set up police coverage and enact anti-crime Ordinances and build Schools, Libraries, Museums, and Hospitals as required.

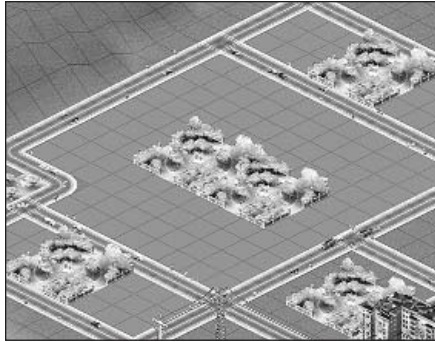


Fig. 32-8. Place Parks and Surface Water liberally to enhance land value.



Fig. 32-9. Use the Reward buildings available to you to bolster land value.

## ENDING

Once you raise your land value high enough, your environmental recovery will be declared complete.

## CRIMINALVILLE

- Level: Easy
- Approximate Playing Time: 30 minutes
- Description: Reclaim Moscow from mob rule.
- Pause: No
- Begins: 12/6/2065
- Duration in Sim Time: 5 years





## WALKTHROUGH

Moscow is a den of iniquity, and it's up to you to save it by fulfilling the following goals:

1. Reduce crime below 30.
2. Increase land value to 90.
3. Raise population to 975,000.

You won't be able to pause this Scenario, but you won't have to worry at all about money; the one benefit of succeeding a corrupt mayor is that he or she leaves the city coffers very full.

### REDUCE CRIME BELOW 30

Begin by repealing the Legalized Gambling Ordinance and enacting all anti-crime Ordinances. Next, increase the Police Budget to 110 percent. If you don't reduce crime quickly enough, you will see frequent Riots.

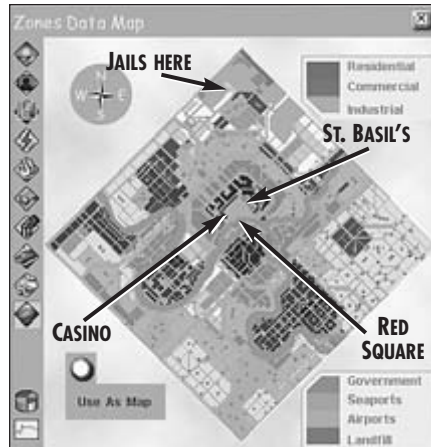


Fig. 32-10. This map shows crucial crime locations.



Fig. 32-11. The single most important thing you can do is tear down that Casino in Red Square (near St. Basil's).



Fig. 32-12. Place Police Stations in high crime areas; kill two jailbirds with one stone by demolishing high crime buildings to make way for the Police Stations.



Fig. 32-13. Place three or more Jails to sop up the new influx of jail birds.

That should be all it takes to tame this town. Once you bring down the Casino, the back of the operation is broken.



## INCREASE LAND VALUE TO 90

Bringing down crime was the first step in improving land value in Moscow. You shouldn't have too far to go.



Fig. 32-14. Put down some water and a bunch of Parks. That should do the trick.

## RAISE POPULATION TO 975,000

Lower taxes in all three categories to woo new Sims to Moscow.



Fig. 32-15. Go to the former Casino site and zone everything in Red Square for high density Residential and Commercial.



Fig. 32-16. When and if Industrial demand comes around, make some new high density zones to open more jobs for immigrating Residential Sims.



Fig. 32-17. Look for undeveloped areas or blocks of low density zoning that can be converted into high density.

Eventually, the population of your crime-exorcised city will balloon to the magic number of 975,000.

## ENDING

If you satisfy all the goals before the deadline, you will be the hero of Moscow.

# FALL OF THE WALL

- Level: Easy
- Approximate Playing Time: 1 hour
- Description: Connect East and West Berlin and bring balance to the city.
- Pause: No
- Begins: 2/9/2067
- Duration in Sim Time: 10 years



## WALKTHROUGH

Berlin is aching to be reunited, but it's going to be a painful process. You need to attend to several simultaneous goals. If you prioritize, however, the task should be manageable. For best effect, follow this order of goals, rather than the way they're listed in the Scenario:

- 1. Reduce overall pollution below 500.**
- 2. Raise land value above 115.**
- 3. Tear down the Berlin Wall.**
- 4. Rebuild Road connections between East and West Berlin.**

You won't be able to pause, so work quickly. Load up on loan money first.

As long as the pollution and land value goals are not met, you will see frequent Riots (and resulting fires). These disturbances will constantly distract you from the business at hand.

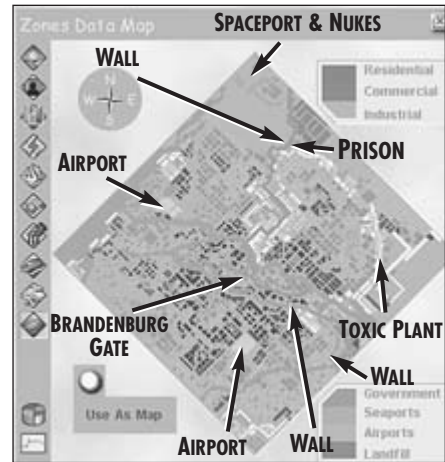


Fig. 32-18. This map will help you get oriented.



## REDUCE OVERALL POLLUTION BELOW 500



### TIP

Before you do anything, put a Police and a Fire Station right next to the Brandenburg Gate to protect it from fire and Riot.

First, pass every anti-pollution Ordinance available. There's no need, however, to bother with pro-clean-industry measures in this Scenario.

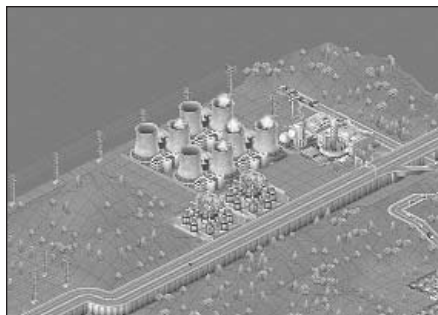


Fig. 32-19. First, set up a few Fusion Power Plants near the battery of Nuclear Power Plants in the north. Then demolish all of the nukes.



Fig. 32-20. Eliminate the Spaceport.



Fig. 32-21. Search the city for dozens of Coal Power Plants and reduce them to rubble.



Fig. 32-22. Demolish the Toxic Waste Conversion Plant.

When pollution is low enough, you'll be lauded for your aggressive effort.



## RAISE LAND VALUE ABOVE 115

Just bringing down the pollution will do wonders for land value, so you already have a head start.



Fig. 32-23. Demolish the Maximum Security Prison.



Fig. 32-24. All you'll need to do from this point is drop some ground water and maybe add a Zoo or a Park or two.

One quick trick is to pass all of the anti-crime Ordinances. This will have some effect on land value. Once land value is high enough, you'll be notified of your success and the Riots will stop.

## TEAR DOWN THE BERLIN WALL



### TIP

Use the View City Layers window to eliminate all zoned structures from the city view. This makes it much easier to see the Wall.

Once you've eliminated most of the Wall, you'll be congratulated on a job well done.



Fig. 32-25. You don't need to tear down the *entire* wall, just most of it. To make this arduous process easier, look for long stretches that are easy to demolish in one move.



Fig. 32-26. Be very, very careful when demolishing anywhere near the Brandenburg Gate. If you knock it down, your reign is over.



## REBUILD ROAD CONNECTIONS BETWEEN EAST AND WEST BERLIN

### ENDING

Once all four goals are met, Berlin is united again—thanks to you.

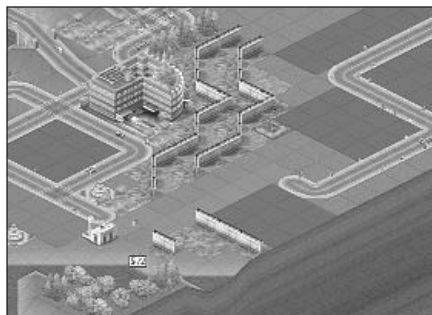


Fig. 32-27. Look over the area previously covered by the Wall and connect any Roads that end on either side of it. Once you connect enough, you'll be given a firm pat on the back.

### FRANKFURTFEST

- Level: Easy
- Approximate Playing Time: 30 minutes
- Description: Frankfurt is preparing to party. Make sure the festival goes off without a hitch.
- Pause: Yes
- Begins: 1/4/2055
- Duration in Sim Time: 2 years



### WALKTHROUGH

The Frankfurtfest Scenario requires you to fulfill these goals:

1. **Select a site for the party.**
2. **Provide adequate police protection.**
3. **Provide water and adequate transportation to the site.**

## SELECT A SITE FOR THE PARTY

Pay close attention during the tour of Frankfurt that opens the Scenario. You have to choose one of these five sites as the party location, and it's up to you to remember where they are. The map (Fig. 32-28) will help.

Each site but one has something that makes it unsuitable for the party:

First, pause while setting up the party site. You won't be able to pause afterwards. If you take too long to establish the site, Riots will occur.

When you've set up in the correct place, you'll be commended.



Fig. 32-28. The potential party sites are indicated in their order of appearance in the tour.



Fig. 32-29. Site 1: This site is too polluted and surrounded by foul industry.



Fig. 32-30. Site 2: Nothing wrong; this is the place.



Fig. 32-31. Site 3: Land value here is too high. The neighbors would never allow the festival to happen here.



Fig. 32-32. Site 4: This is the most polluted part of the city; take a gander at all those Incinerators.

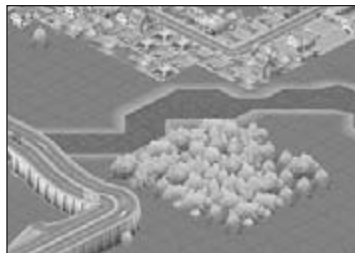


Fig. 32-33. Site 5: This site is too close to the river. Garbage from the party could cause pollution problems.



Fig. 32-34. Now, go to site 2 and set up four adjacent Parks in the densely wooded square south of the Highway and east of the Fire Station.





## PROVIDE ADEQUATE POLICE PROTECTION

Technically, your goal is to reduce crime below 56. Open your Ordinances Window and pass all the anti-crime Ordinances and repeal the Legalized Gambling Ordinance.

Give the simulation a few ticks to let crime fall and Constance will praise your efforts.



Fig. 32-35. To do this, place at least one Police Station near—but not *too* near—the party site. Frankly, you can place it anywhere on the map, but the point is for these police to protect and serve *at the party*.

## PROVIDE WATER AND ADEQUATE TRANSPORTATION TO THE SITE

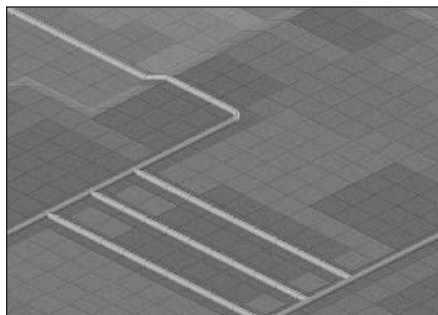


Fig. 32-36. Go into the Pipe View below the party site and lay pipes across the site until Constance tells you it's enough.



Fig. 32-37. Next, surround the site with Roads and connect them to the surrounding thoroughfares. Place four Bus Stops near the site, one per side.

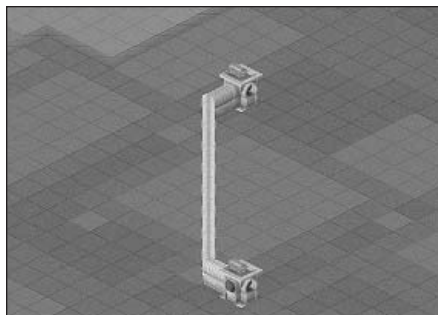


Fig. 32-38. Place Subway Stations in the north and south corners of the site and run a Subway Tunnel between them.

When all transportation elements are set up, Constance will inform you of your job well done.

## ENDING

Once all three goals are satisfied, the Scenario ends with hearty congratulations. *Ein, Zwei, G'soffa!* (That's German for "Let's Party!").

# LONDON FIRES

- Level: Novice to Intermediate
- Approximate Playing Time: 45 minutes
- Description: Prevent London from becoming a blazing inferno.
- Pause: Yes (No, after 5 months)
- Begins: 1/20/1991
- Duration in Sim Time: 1 year



## WALKTHROUGH

London's about to burn, so prepare by reducing flammability:

- 1. Establish adequate fire protection for the city.**
- 2. Supply water to the entire city.**
- 3. Don't let any of the five Landmarks be destroyed by fire.**

Use your ability to pause in the first five months to your advantage. Each time you start the simulation it will take time to update the water supply; this will eat up your grace period really fast. Instead, pause the game and lay down fire coverage and pipes across the entire city and add excessive water supply structures. Then start your game and see if you need to make any changes.

Your opening tour will take you to the five Landmarks you must protect from the flames:



Fig. 32-39. Trafalgar Square



Fig. 32-40. Westminster Abbey and Big Ben



Fig. 32-41. St. Paul's Cathedral



Fig. 32-42. The Tower of London

If any of these Landmarks are destroyed, you'll lose automatically.

## ESTABLISH ADEQUATE FIRE PROTECTION FOR THE CITY

First, pass both flammability reduction Ordinances (Leaf Burning Ban and Mandatory Smoke Detectors).

You can set up fire coverage while paused. Use the Flammability Data Map as your Navigation Map; the radius for each newly placed Fire Station shows on the map even if the game is paused.

## SUPPLY WATER TO THE ENTIRE CITY

The pipes under London are fragmented and the water supply is inadequate. You need to douse the entire city in a network of constant water. The five Landmarks must be extra-watery.

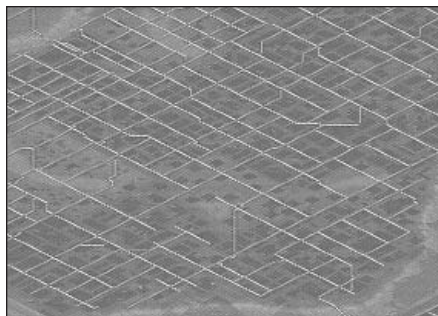


Fig. 32-45. Before you release pause, take care of your watering duties. Forget about piecing together the existing pipes and run your own pipes in a tight network over the entire city (money is no object). Switch on the simulator until the water system updates and pause again.

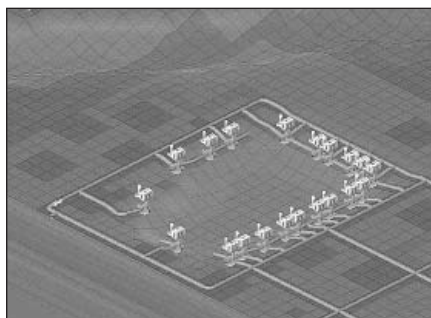


Fig. 32-46. Make sure these Pumping Stations in the west are all linked to pipes.

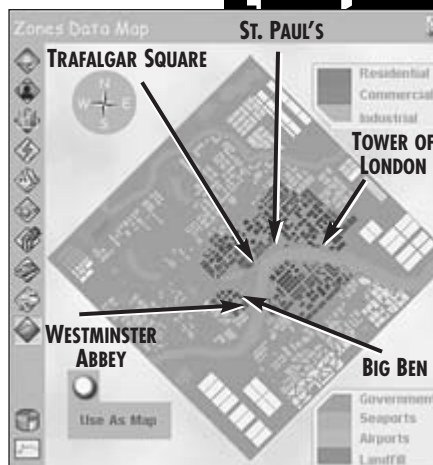


Fig. 32-43. The map shows the location of each Landmark.



Fig. 32-44. Next, cover your city with a thick network of Fire Stations. It doesn't matter what you have to demolish. Make sure no tile is without fire coverage.

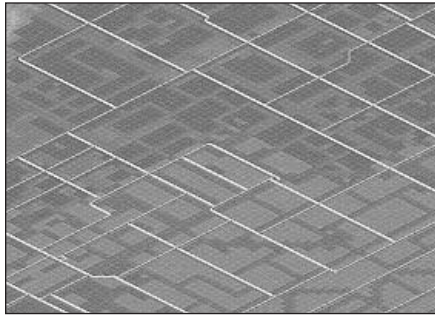


Fig. 32-47. Run pipes to any unwatered tiles. Chances are the southeastern portion of your city will be dry due to a lack of pump capacity. Add new pumps or make sure operating ones are connected. Start the simulator again to make sure you have everything.

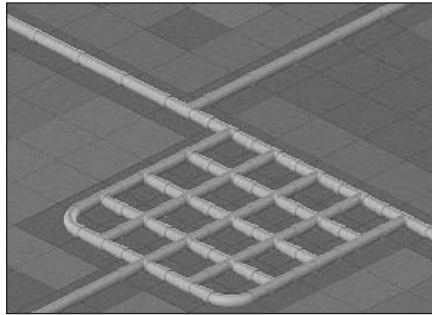


Fig. 32-48. Finally, you'll need to give your five Landmarks some special TLC. Under each Landmark, place pipes on every tile so you get a tight grid of water beneath the surface. Run the simulator again until the water system updates.

If there are no unwatered structures and the Landmarks are sufficiently overwatered, you'll have completed this goal.

## DON'T LET ANY OF THE FIVE LANDMARKS BE DESTROYED BY FIRE



Fig. 32-49. Near each Landmark, place at least two (preferably three) Fire Stations.

Fires break out constantly during this Scenario, so make the protection around your Landmarks as automated as possible.

## ENDING

If your Landmarks survive for one year (until January 1992), you'll receive your just rewards.





# LORD OF THE LOCUSTS

- Level: Easy
- Approximate Playing Time: 1 hour
- Description: Locusts have invaded the Farms of your small town. Wipe out these invaders and save the Sims.
- Pause: No
- Begins: 4/5/1955
- Duration in Sim Time: 5 years



## WALKTHROUGH

The Lord of the Locusts puts you in charge of a small, rural town with the following goals:

1. Build a small Airport as a base for your Crop Dusters.
2. Relocate your Industrial zones away from the downtown area.
3. Build two new Farms without losing your existing Farms.



Fig. 32-50. This map should give you some perspective.

## BUILD A SMALL AIRPORT AS A BASE FOR YOUR CROP DUSTERS

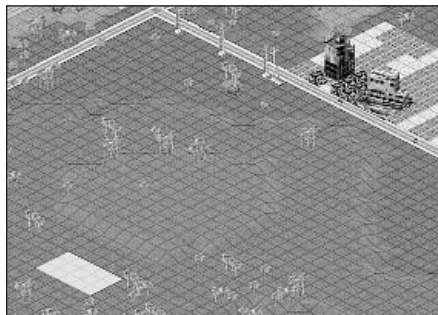


Fig. 32-51. Select a spot close enough to your Farms (southeast of the river for sure) but not so close that Airport pollution will foul your Farms.



Fig. 32-52. Establish a  $5 \times 3$  Airport zone. Don't forget to power and water it. If you locate it near enough to the river, you can set up some Pumping Stations. Otherwise, give the Airport its own Water Towers.

## RELOCATE YOUR INDUSTRIAL ZONES AWAY FROM THE DOWNTOWN AREA



Fig. 32-53. Switch to your View City Layers window and turn off Zoned Buildings. Next, demolish and dezone all Industrial zones in the downtown.

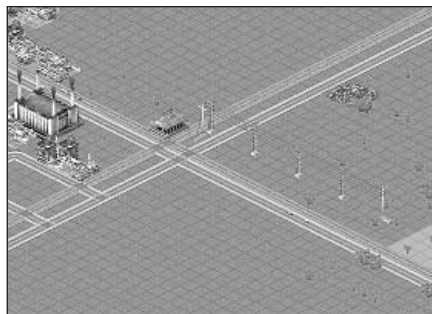


Fig. 32-54. Zone and power a new area outside the town.

## BUILD TWO NEW FARMS WITHOUT LOSING YOUR EXISTING FARMS

Actually, the goal is to have a citywide total of Farm tiles above a certain number. It may take more than two Farms to get there. Plus, any tiles destroyed by locusts won't count toward your total.

First, pass the Farmer's Market Ordinance.



Fig. 32-55. Next, supply water to all your existing Farms either via new Water Towers or by setting up pipes and an array of Pumping Stations on the river.



Fig. 32-56. Zone (Light Industrial) two new  $9 \times 9$  sites far away from the Airport and not adjacent to your existing Farms. Provide them with water and power. If you've lost tiles to the bugs, you'll need to build more than this.



Fig. 32-57. You may have to take steps to increase Industrial demand before those new Farms will grow. Try lowering Industrial taxes to 0 percent and setting up lots of new low density Residential tiles in response to the high Residential demand. This should, in turn, spur Industrial demand.

## ENDING

If you've completed all goals before five years, you'll be declared Harvest King!



# RAGS TO RICHES

- Level: Easy
- Approximate Playing Time: 1 hour
- Description: Madrid could be famous and rolling in dough if you successfully turn the local athletes into stars.
- Pause: No
- Begins: 11/14/2076
- Duration in Sim Time: 3 years



## WALKTHROUGH

Madrid must be cleaned up in more ways than one if it wants to be a world class sports city. Work fast on these goals because you won't be able to pause:

1. Reduce crime below 15 so fans and teams can attend games.
2. Reduce pollution below 600 so the team can practice.
3. Build Roads to the Stadium.

Begin by taking out the maximum amount of possible loans to pad your treasury.

If you don't move quickly enough, Riots and fires will ensue.

If anything destroys the Stadium, you lose instantly!

## REDUCE CRIME

Your first act is a legal one: pass all anti-crime Ordinances and repeal Legalized Gambling.

Next, crank the Police budget to 110 percent.



Fig. 32-60. Select a large, open, and out-of-the-way spot and build enough Jails (eight or more).

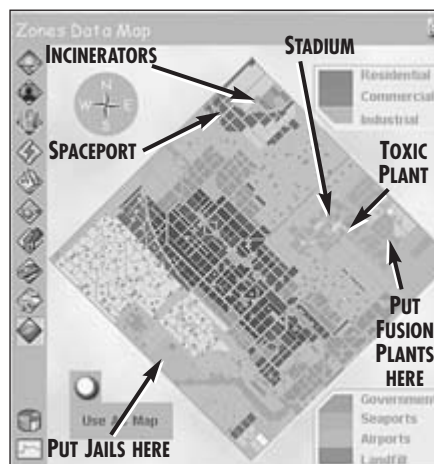


Fig. 32-58. A map of Madrid



Fig. 32-59. Use the Crime Data Map as your Navigation Map and place Police Stations all over the city. It takes dozens of Police Stations to provide full protection.



## REDUCE POLLUTION BELOW 600

Start by passing all anti-pollution Ordinances *and* all clean industry incentive Ordinances. Your Sims start with a sufficiently high educational level to bring in substantial clean industry with a little encouragement.



Fig. 32-61. Demolish the Toxic Waste Conversion Plant.



Fig. 32-62. Plunk down three or so Fusion Power Plants.



Fig. 32-63. Bulldoze every Coal Power Plant you can find (there are several).



Fig. 32-64. Make a Neighbor Deal to export your garbage and demolish your Incinerators and Waste-to-Energy Incinerators.



Fig. 32-65. Demolish the Spaceport.

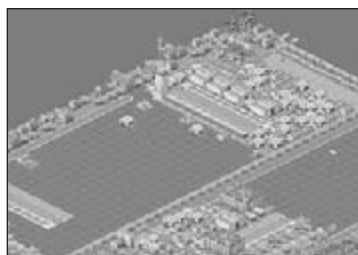


Fig. 32-66. If all this doesn't do the trick, demolish and dezone half or more of your Airport.

When levels are low enough, your Advisor will be able to breathe freely enough to thank you.

## BUILD ROADS TO THE STADIUM

When sufficient access is present, you'll receive the credit you deserve.

## ENDING

If you complete your goals before the Scenario ends, you and your team win.



Fig. 32-67. Demolish and dezone around the Stadium and place a ring of Roads around it. Link these Roads to surrounding Roads and you've got yourself easy transportation.



# SEOUL WORLD CUP

- Level: Intermediate
- Approximate Playing Time: 30 minutes
- Description: Prepare Seoul for 2003 World Cup.
- Pause: Yes (No, after 6 months)
- Begins: 1/3/1999
- Duration in Sim Time: 3 years, 3 months



## WALKTHROUGH

You'll need to fulfill three goals in Seoul. You have free rein to pause in the first 6 months, but the Scenario will be locked in at cheetah speed thereafter.

- 1. Build a big international Airport with lots of public transportation.**
- 2. Construct five Practice Fields with good access to transportation.**
- 3. Enact tourism legislation and improve transportation to Landmarks.**

If you fail to bring about changes quickly enough, Riots will occur among travelers who can't get downtown from the Airport, soccer players who can't find places to practice, and soccer fans who can't get to the games or the city's Landmarks.

Pause immediately. You can do most of the work in this Scenario in pause before the no-pause deadline (6 months). This helps to avoid the Riots that ensue if each goal is not met quickly enough. You'll have to start the simulation briefly to register the completion of your work.



Fig. 32-68. A guided map of Seoul

## BUILD A BIG INTERNATIONAL AIRPORT WITH LOTS OF PUBLIC TRANSPORTATION



Fig. 32-69. Your first step is to provide your existing Airport with four Bus Stops and two connected Subway Stations. You'll need to do a little demolition and landscaping to squeeze them all in.

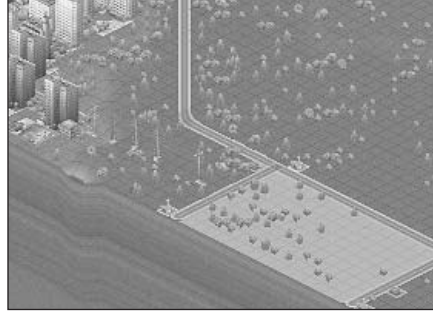


Fig. 32-70. Locate a site for a new Airport. A very good spot is in the flat open area on the southwest side of the map. Give it four Bus Stops and two connected Subway Stations.

Start the simulation briefly and you'll be commended for your transportation efforts.

## CONSTRUCT FIVE PRACTICE FIELDS WITH GOOD ACCESS TO TRANSPORTATION

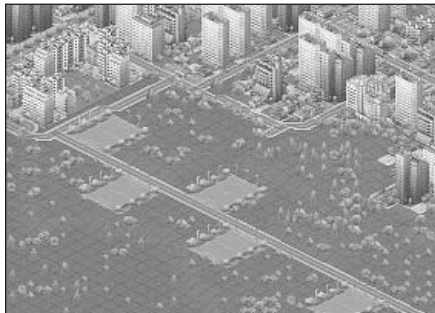


Fig. 32-71. Place five Practice Fields (Sports Parks under the Parks & Recreation menu) anywhere in the city.



Fig. 32-72. Give each a Bus Stop and a connected Subway Station.

Unpause and take the credit for being so sports-friendly.



## ENACT TOURISM LEGISLATION AND IMPROVE TRANSPORTATION TO LANDMARKS

First, enact the Tourist Promotion Ordinance.



Fig. 32-73. Next, place a Bus Stop and a connected Subway Station near each of the two Soccer Stadiums in the Olympic Park.

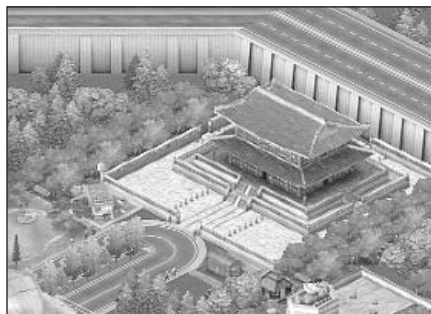


Fig. 32-74. Do the same at the Kunjungjon and the Daehan Life Insurance Building (a.k.a. The Korea Life Building). You may have to demolish some buildings to build Bus Stops close enough.



Fig. 32-75. Finally, build a Bus Stop near the Namsan. You won't be able to run Subway Tunnels up here, so the Bus Stop is enough.

Let time run and you'll be notified as each site is acknowledged.

## ENDING

Once you've set up everything, unpause the Scenario and let the accolades roll in. Seoul is ready for some fútbol!

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SCENARIOS

# SEPARATION ANXIETY

- Level: Intermediate
- Approximate Playing Time: 30 minutes
- Description: This city is ripped apart at the seams, literally! Solve the puzzle by trading Reward buildings.
- Pause: Yes
- Begins: 1/4/1990
- Duration in Sim Time: 5 years



## WALKTHROUGH

In the city of Splitzville, you must quickly satisfy three goals. Remember that you can't pause.

- 1. Remove all connections between the city's four provinces before the Earthquakes hit.**
- 2. Provide missing services to each of the four provinces.**
- 3. Trade the appropriate Reward buildings between the provinces.**

Five Earthquakes occur over the course of the Scenario.

## REMOVE ALL CONNECTIONS BETWEEN THE CITY'S FOUR PROVINCES

Pass the Earthquake Preparedness and Retrofitting Ordinance to minimize Earthquake damage while you prepare for "The Big One."

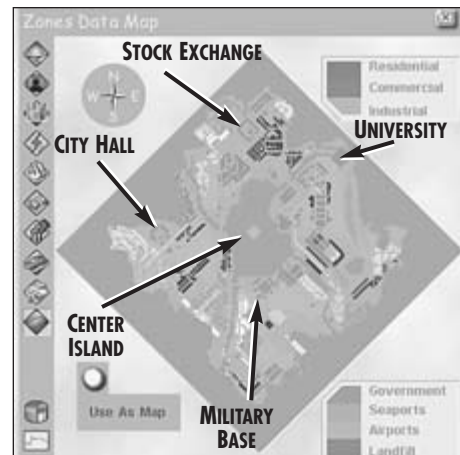


Fig. 32-76. Locate the four ravines that divide Splitzville into north, west, south, and east provinces.





Fig. 32-77. Note that, though each is primarily filled with water, there are places where the ravines are interrupted by dry land. Clear all connections from these areas too.



Fig. 32-78. Start by bulldozing Roads, Highways, and Power Lines on the borders. Just to be sure, make sure there aren't any connective structures within 3 or more tiles of the ravines.



## NOTE

You are under no obligation to be neat about this process. You needn't, for example, replace a destroyed On-Ramp; your job is to clear the area as fast as possible. Often, that last little fix is what prevents you from completing this goal.

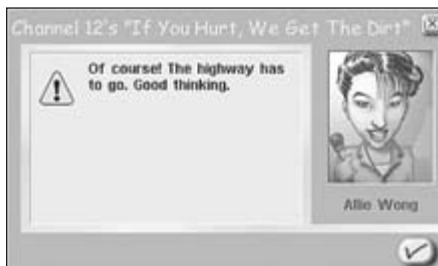


Fig. 32-79. Keep track of the congratulatory messages. You should see one each for Roads, Highways, Power Lines, pipes, and Subway Tunnels.

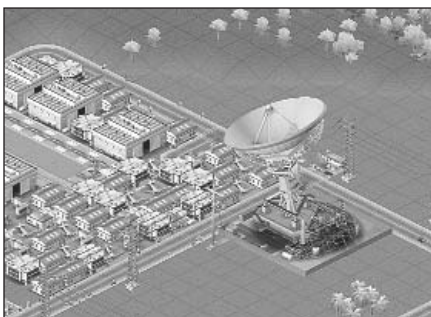


Fig. 32-80. Finally, make sure the entire city is watered and powered. Place Power Plants and water supply structures in provinces cut off from their previous supply.

When all connections are cut and full utility service is supplied to all four provinces, you'll receive congratulations for completing goal one.



## NOTE

This goal will be incomplete if any part of the city becomes unwatered or unpowered due to an Earthquake. After each tremor, check and restore power and water or you won't be able to complete the Scenario.

## PROVIDE MISSING SERVICES TO EACH OF THE FOUR PROVINCES

Each of the four provinces is missing *one* essential municipal structure. Place the appropriate structures to complete this goal.



Fig. 32-81. The north needs a Museum.

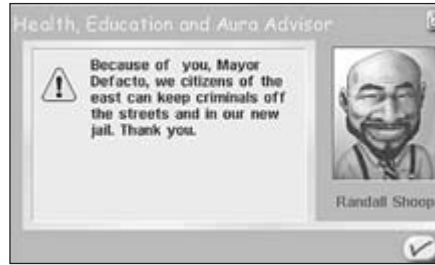


Fig. 32-82. The east needs a Jail.



Fig. 32-83. The south needs a School.



Fig. 32-84. The west needs a Library.

Once all four are placed, the goal is satisfied.

## TRADE THE APPROPRIATE REWARD BUILDINGS BETWEEN THE PROVINCES

Each province has a prized Reward building:

- North: Stock Exchange
- East: University
- South: Military Base
- West: City Hall



### NOTE

If one of the Reward structures is destroyed in an Earthquake, you'll find it in the Rewards & Opportunities window.





Your job is to trade them correctly between the provinces. To do this, demolish all four so they appear in your Rewards & Opportunities window. Each time you place all four, you'll be told how many are correct. Determine the correct locations by the process of elimination; or you can just read on to find the solution:



Fig. 32-85. North: Military Base

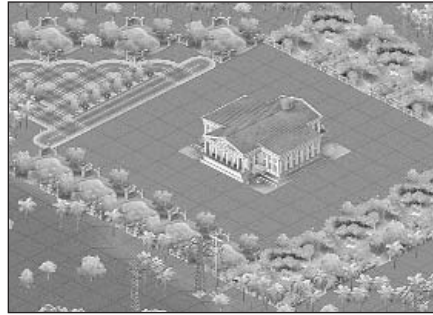


Fig. 32-86. East: Stock Exchange



Fig. 32-87. South: City Hall

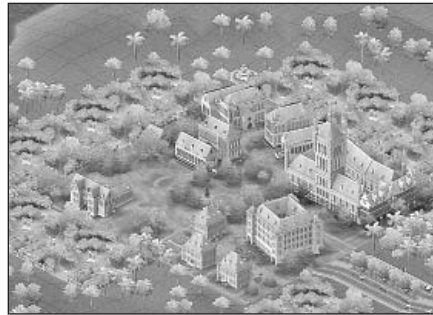


Fig. 32-88. West: University

## ENDING



Fig. 32-89. Once all three goals are completed, you'll be instructed to complete the job by placing the Statue of Liberty on the central island.

# TOP OF THE WORLD

- Level: Intermediate
- Approximate Playing Time: 1 hour
- Description: The melting of the polar ice caps has left just one city on Earth. You must help it survive.
- Pause: No
- Begins: 1/1/2007
- Duration in Sim Time: 4 years



## WALKTHROUGH

Top of the World requires three tightly interconnected goals. Satisfying one will usually contribute to the others. You'll need to keep all goals satisfied for all four years. You can't pause or change speeds.

- 1. Raise and keep land value over 70.**
- 2. Lower and keep pollution below 4.**
- 3. Increase population above 55,000**

Start by taking out all possible loans.

## RAISE AND KEEP LAND VALUE OVER 70

Pass the land-value-enhancing Homeless Shelter Ordinance. Check the anti-crime Ordinances as well; they indirectly increase land value.



Fig. 32-90. This is your most urgent priority; Riots will occur in the second and sixth month if you don't get land value on the rise.



Fig. 32-91. Look for places inland to Create Surface Water.



Fig. 32-92. Replace Large Parks in the downtown area with Surface Water for a more potent land value effect.



Fig. 32-93. Look in your Rewards & Opportunities window. Place the County Courthouse, Mayor's House, and City Hall on any available land near Residential or Commercial zones.



Fig. 32-94. Check the Meeting window and accept the Lighthouse. Place it on one of the islands, preferably near Commercial zones. Raise terrain if you have to.

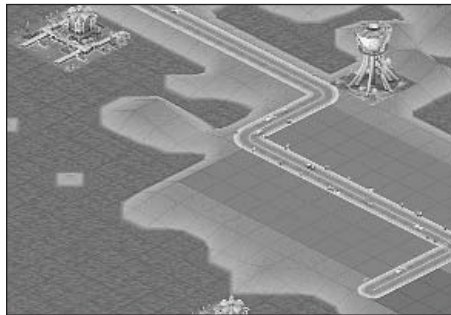


Fig. 32-95. Build Marinas. They enhance land value and don't consume any land.

When land value is high enough, you'll receive all due kudos. Make sure, however, that land value doesn't drop before the Scenario ends.

## LOWER AND KEEP POLLUTION BELOW 4

All anti-pollution efforts should also help your land value.



Fig. 32-96. Demolish and dezone the Seaports.



Fig. 32-97. In the Meeting window, accept Geyser Park and place it near your Commercial zones. A hospitable spot sits near your Marina on the southwest shoreline.



Fig. 32-98. Pass all anti-pollution Ordinances, but only after your population is rising. If you depress Industrial demand too much, you won't be able to bring in the Residential Sims you need in order to grow.



Fig. 32-99. Build two Water Treatment Plants.



Fig. 32-100. If pollution is still too high as you enter your final year, slowly demolish Industrial zones. Stick with low density zones and don't go too far. Do this only if you have a substantial population cushion.

Pollution has to remain low when the Scenario ends, so keep an eye on it.



## INCREASE POPULATION ABOVE 55,000



Fig. 32-101. Look for large areas of medium density Residential and Commercial zones. Demolish and convert these to high density.



Fig. 32-102. Level terrain near shorelines to acquire new land and zone for whatever zones you need. Also, avoid building up land near already developed properties; if you move them farther from water, you may depress their land value.

| Budget                     |  | Expenditures             |                        | Income               |                                     |
|----------------------------|--|--------------------------|------------------------|----------------------|-------------------------------------|
| (2008) Budget<br>June 2008 |  | Adjust                   | Year to Date<br>Income | Year End<br>Estimate | Meet<br>Adviser                     |
| Debt Service               |  | <input type="checkbox"/> | \$0                    | \$0                  |                                     |
| Neighbor Deals             |  | <input type="checkbox"/> | \$0                    | \$0                  | <input type="checkbox"/>            |
| Business Deals             |  | <input type="checkbox"/> | \$0                    | \$0                  | <input type="checkbox"/>            |
| Transit Fees               |  | <input type="checkbox"/> | \$30                   | \$79                 |                                     |
| Disaster Relief            |  | <input type="checkbox"/> | \$0                    | \$0                  |                                     |
| Residential Tax Rate       |  | <input type="checkbox"/> | \$0                    | \$0                  | <input type="checkbox"/>            |
| Commercial Tax Rate        |  | <input type="checkbox"/> | \$0                    | \$0                  | <input type="checkbox"/>            |
| Industrial Tax Rate        |  | <input type="checkbox"/> | \$0                    | \$0                  | <input type="checkbox"/>            |
| Year to Date Income        |  |                          | \$30                   |                      |                                     |
| Estimated Income           |  |                          |                        | \$79                 |                                     |
| Year to Date Expense       |  |                          | \$2,385                | \$5,690              |                                     |
| Estimated Expense          |  |                          |                        | \$5,690              |                                     |
| Year to Date Cash Flow     |  |                          | \$2,325                | \$5,690              |                                     |
| Estimated Cash Flow        |  |                          |                        | \$5,690              |                                     |
| Current Funds              |  |                          |                        | \$32,362             | <input checked="" type="checkbox"/> |
| End of Year Funds          |  |                          |                        | \$36,743             |                                     |

Fig. 32-103. After the first couple years, drop all tax rates to 0 percent to attract Sims.



Fig. 32-104. There will come a point at which you'll need to expand your Industrial zones by adding new land or adding low density zones to the former locations of your Seaports. This will probably increase your pollution above 4, but you'll have plenty of time to undo this.

## END

If, at the end of four years, all goals remain met, you win.



# MAKING YOUR OWN SCENARIO

BY JENNA CHALMERS, *MAXIS*

## UNDERSTANDING HOW A SCENARIO WORKS

Making a Scenario is a lot like writing a story or screenplay. The Scenario author sets up the story line, creates dialog that communicates with the player, progresses the plot, and comes to a conclusion.

A Scenario is “written” with the Scenario Creator. It contains the instructions a Scenario will follow as a player works through it.

## SCRIPTS

These instructions are organized into “scripts.” Every Scenario has a script called “Main.”

The Main script is like the table of contents at the front of a book. When the Scenario starts, it reads the Main script once and gets all the information it needs to run the Scenario.

Additional scripts keep the instructions organized in a way that makes sense to you as the Scenario’s author.

For example, you might use one script to hold all your instructions regarding Disasters and another script to hold instructions regarding News Tickers. Alternatively, if you have a lot of Disasters in your Scenario, you could organize them into two scripts. Perhaps you would have one script that contains the instructions for fires and a second script that contains the instructions for Riots. It’s entirely up to you. A Scenario might have two, twenty, or even more scripts.

## BREAKING DOWN THE THREE GOAL SCENARIO SCRIPTS

*SimCity 3000 Unlimited* includes the “Template for a Three Goal Scenario,” with example scripts that can be used as a foundation for almost any Scenario.

The “Template for a Three Goal Scenario” uses the following scripts:



- **Main:** Contains the “table of contents” and initial instructions for the Scenario.
- **Check Goals:** Checks to see if the Goals are Satisfied or Unsatisfied.
- **Disaster Triggers:** Holds instructions for when and where a Disaster should start.
- **NT Triggers:** Holds instructions for which News Ticker items should run and when.
- **Game Over Conditions:** Holds instructions for when to end the Scenario and what Rank and message to give the player at the end of the game.
- **Scenario Dialog Changes:** Holds instructions for when to change the message that appears in the Scenario status screen.



Fig. 33-1. The Scenario Overview Window

## MAIN

This script finds the Goals and Ranks you have set for your Scenario, creates the opening message, finds the other scripts, and sets the Scenario speed.

By reading the Main script, you will notice:

- Three Goals that are automatically added from the Goals Manager.
- Four Ranks that are automatically added from the Ranks Manager.
- The opening message is called “OpeningMessage” and the mood of the Advisor is “Very Satisfied” (text for this opening message, Scenario status messages, and Pop-up messages are added in the Dialog Text Manager).
- The other five scripts are called on daily except for “Disaster Trigger,” which is called monthly. (If you add a new script, you need to add a “call” for it or it will be ignored.)
- The Scenario speed is set to “cheetah” and the player is not allowed to modify the speed (including “pausing” the game).

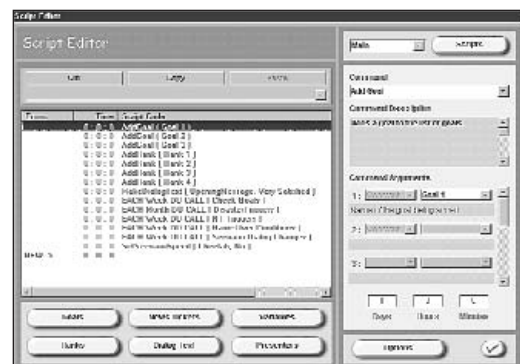


Fig. 33-2. The Main script as it appears in the Script Editor

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## CHECK GOALS

The Main script says that the “Check Goals” Script is called on “Daily.” This means that, for each *SimCity* day, this script will be read to see if Goals have been Satisfied or Unsatisfied.

Open the Goal Manager by clicking on “Goals.” Three Goals have been entered as examples. They are:

- Goal 1: Reduce crime below 15
- Goal 2: Build a School
- Goal 3: Build a Road at a specific location (coordinates 51, 153)

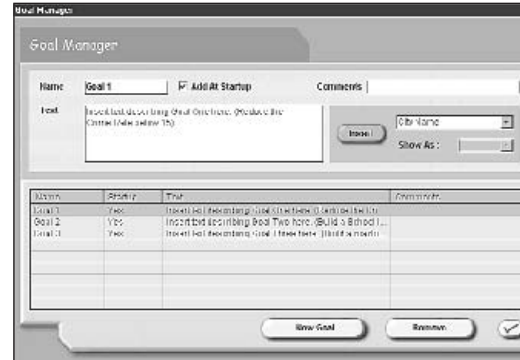


Fig. 33-3. The Goal Manager

Close this window and go back to the Check Goals script.

Let’s look at how we check for these three Goals in the Check Goal script.

In the Check Goals script:

- Lines 1–21 deal with Goal 1.
- Lines 22–44 deal with Goal 2.
- Lines 45–69 deal with Goal 3.
- Lines 70–100 give Pop-up messages as the player runs out of time.

## GETTING INFORMATION FROM THE CITY

For each of the Goals, we first need to get information from the city during the playing of the Scenario, and then we need to tell the Scenario what to do with that information.

For example, in Goal 1 we want the player to reduce crime below 15. The crime rate will change as the player plays the Scenario, so we need the Scenario to check what the crime rate is at a given moment and then to mark the Goal as Satisfied or Unsatisfied.

In this case, we get that information using the “Get Crime Value” command, and we put the results in a Variable called “Crime.”

## VARIABLES

Results to commands are kept in “Variables.” Variables are created in the Variable Manager simply by giving them a name. Variables are used in several ways. In this case the Variable holds the information we get from the city while someone is playing the Scenario.



For Goal 1, the Variable we called “Crime” holds the results of the “Get Crime Value” command. Now we need to tell the Scenario what to do with that information.

Basically our instructions are:

1. If the crime rate is less than 15, then pop up a message and mark Goal 1 Satisfied.
2. If the crime rate is greater than 15, then pop up a message and mark Goal 1 Unsatisfied.



Fig. 33-4. The crime value from the game is stored in the Variable called “Crime.”

## FLAGS

But what about those Flags?

In short, we are using a Variable we called “Flag” to prevent the Pop-up message from popping up over and over, every single day. We want the message to pop up only once for each time you Satisfy or Unsatisfy the Goal.

So our instructions actually read:

If 15 is greater than the crime rate and the Flag is at 0, pop up a message, mark Goal 1 Satisfied, and set the Flag to 1.

The next time this script is read, if the Flag has been set to 1, the Scenario will skip the instructions to pop up a message and mark the Goal Satisfied.

The next lines show that if the crime rate increases above 15 the Goal will become Unsatisfied and the Flag will be set back to 0. By completing the cycle, the player gets one message each time he or she Satisfies or Unsatisfies the Goal.

Goal 2 follows the same pattern but this time it counts Schools in the city.

## USING COORDINATES

Goal 3 introduces the use of coordinates. First, it counts the number of Road tiles at a certain coordinate and radius. Next, it counts the number of Highway tiles at the same location. Then, it uses the “Add” command to get the sum of these two numbers. This allows the player to place either Road or Highway tiles at the required coordinates to Satisfy Goal 3.

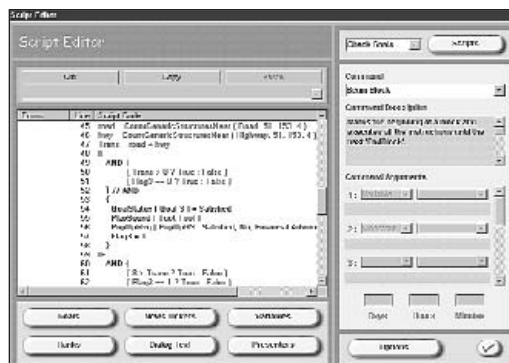


Fig. 33-5. The script uses game map coordinates.

The rest of this script sets Pop-up messages to occur when a certain number of months have elapsed. Notice these also use Variables to prevent this Pop-up message from happening every day during the required month. In this case, the Variables are called “time2yrs,” “timelyr,” and “time1month.”

## DISASTER TRIGGERS

The Main script says we will call on the “Disaster Triggers” script “Monthly.” This means every *SimCity* month, this script will be read to see if a Riot should happen or not.

The first step is to decide how, when, where, and which Disasters you want to have happen in your Scenario. In this case, the plan is for Riots to happen if Goal 1 (which has to do with crime) is Unsatisfied. We’ve decided to have one Riot happen one month into the Scenario at specified locations. After four months, if Goal 1 is still Unsatisfied, Riots will occur monthly at random locations. Once the player Satisfies Goal 1, the Riots will automatically stop.

In the Disaster Triggers script:

- Line 1 gets the number of months elapsed in the game at the moment the script is being read.
- Lines 2–13 deal with one Riot.
- Lines 14–27 deal with monthly Riots.

Our instructions for the first Riot are pretty simple:

**If Goal 1 is Unsatisfied and exactly one month has passed, then sound the “alarm bell,” pop up a message called “Riot1 Warning,” and start a Riot at three locations.**

In this case we have specified the coordinates where we want these Riots to happen.

The next Riots will happen at a different location each month.

This time our instructions are:

**If Goal 1 is Unsatisfied and more than four months have elapsed, then sound the “siren” and start three Riots at random locations.**

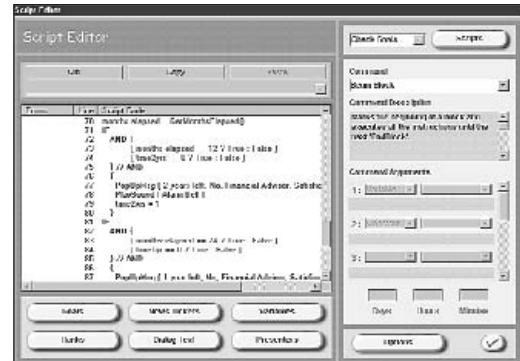


Fig. 33-6. Like Flags, the “time...” Variables prevent Pop-up messages from occurring constantly.

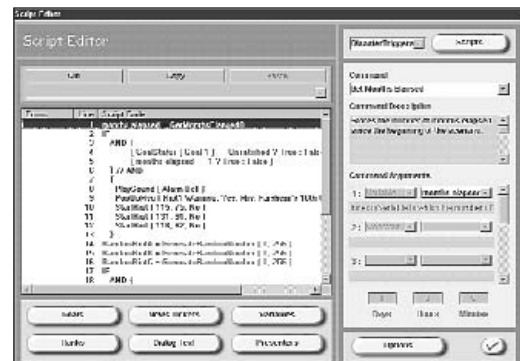


Fig. 33-7. Scripting a Riot



Using random locations allows the Riots to happen at a different location each month, which makes the Scenario more interesting.

To accomplish this we ask the Scenario to generate three random numbers between 1 and 256. (All coordinates in *SimCity 3000 Unlimited* fit within this range). We need two random numbers for each Riot location, an x coordinate and a z coordinate. We use a Variable to hold the number that is generated. The final step is to use the Variable name to specify the Riot location instead of entering a coordinate. Because the range for our coordinates is the same for x and z, we can use the same Variable as both an x and z coordinate.



Fig. 33-8. Vary Disaster locations using random coordinates.

## NT TRIGGERS

The Main script says we will call on the “Disaster Triggers” script “Daily.” This means that, for every *SimCity* day, this script will be read to see if a Scenario News Ticker should happen or not.

In this Scenario, the News Tickers are specific as to whether a Goal has been Satisfied or not.

Our instructions are very simple:

- If Goal 1 is Unsatisfied, then show News Ticker 1.
- If Goal 2 is Unsatisfied, then show News Ticker 2.
- If Goal 3 is Unsatisfied, then show News Ticker 3.
- If Goal 1 is Satisfied and Goal 2 and 3 are Unsatisfied, then show News Ticker 4.



Fig. 33-9. News Ticker messages can be tied to Goal status in a script such as this.

## GAME OVER CONDITIONS

The Main script says we will call on the “Game Over Conditions” script “Daily.” This means that, for every *SimCity* day, this script will be read to see if the requirements have been met to end the Scenario.

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Typically, a Scenario ends when one of the following occurs:

- The time limit has run out.
- All the Goals have been Satisfied.
- The player executes an action that is an “automatic lose” or “automatic win.”

## GOAL SATISFACTION

This Scenario ends when 36 months have passed *or* when all the Goals have been Satisfied, whichever comes first.

If a Scenario has three Goals, there are eight possible combinations of Satisfied vs. Unsatisfied Scenario status results. The “Template for a Three Goal Scenario” uses a simple system to track these.

- SSS = Goals 1, 2, and 3 are Satisfied.
- SSU = Goals 1 and 2 are Satisfied, Goal 3 is Unsatisfied.
- SUS = Goals 1 and 3 are Satisfied, Goal 2 is Unsatisfied.
- USS = Goals 2 and 3 are Satisfied, Goal 1 is Unsatisfied.
- UUS = Goals 1 and 2 are Unsatisfied, Goal 3 is Satisfied.
- USU = Goals 1 and 3 are Unsatisfied, Goal 2 is Satisfied.
- SUU = Goals 2 and 3 are Unsatisfied, Goal 1 is Satisfied.
- UUU = Goals 1, 2, and 3 are Unsatisfied.

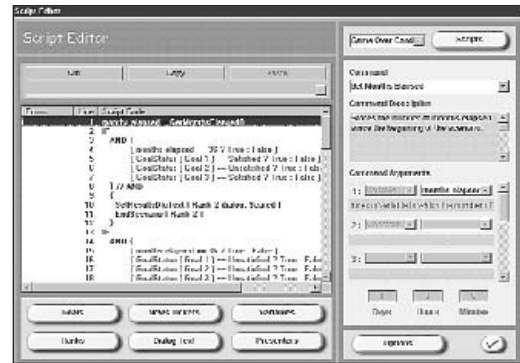


Fig. 33-10. A script can check the status of all Goals and all possible combinations of results.

## RANK

The Game Over Conditions script gives instructions as to which ending message and which Rank a player should receive, depending on which Goals have been Satisfied.

For example, lines 2–12 state:

**If 36 months have passed and Goals 1 and 3 are Satisfied and Goal 2 is Unsatisfied, then set the Results Dialog Text to be Rank 2 dialog and end the Scenario with Rank 2.**

This script goes on to specify which message (“SetResultsDlgText”) and which Rank should be assigned to the player under each possible circumstance.

The instruction can look slightly different if all the Goals are Satisfied. In that case we don’t need to specify how many months have passed because we want the Scenario to end as soon as the Goals have been completed. In addition, there is a shortcut command for situations where all Goals are Satisfied.



This is seen at the end of the Game Over Conditions script, lines 79–84:

**If AllGoalsMet, then set the Results Dialog Text to be Rank 1 dialog and end the Scenario with Rank 1.**

Remember, the Rank is the title you give the player at the end of the Scenario. These are created in the Rank Manager. The SetResultDialog command sets the ending message you want to have appear below the Rank. These are created in the Dialog Text Manager.

For example, the Rank might be “Winner!” The Set Results Dialog Text might be “Congratulations on a job well done! The people have elected you to another term in office in recognition of all your hard work.”

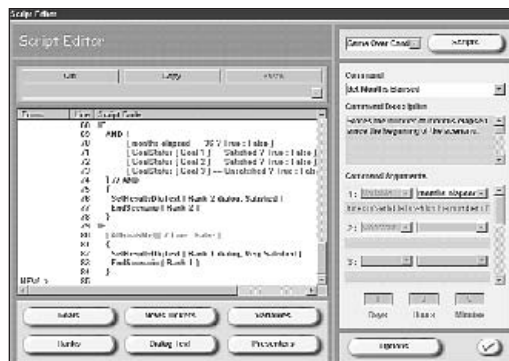


Fig. 33-11. If all Goals are met, the Scenario ends. Look at lines 79–84 for how to create this result.

## SCENARIO DIALOG CHANGES

The Main script says we will call on the “Scenario Dialog Changes” script “Daily.” This means that, for every *SimCity* day, this script will be read to see which Scenario status message should appear.

The Scenario status dialog is the text that appears above the Goals when a player clicks on the Scenario status button in the right hand toolbar, on any Scenario related News Ticker, or on the Scenario status button in a Pop-up message.

The initial Scenario status message, set in the Main script, sets up the story line of the Scenario. You can change the Scenario status dialog message based on time elapsed, Goals left Unsatisfied, or any other conditions.

The “Template for a Three Goal Scenario” changes the Scenario status dialog message based on which Goals have been Satisfied. This allows you to give the player tips on how to Satisfy the remaining Goals.

The structure of this script is very similar to the Game Over Conditions script. With three Goals, there are eight possible combinations of Satisfied vs. Unsatisfied Goals. The script has set a Scenario status message to appear with each possible combination.



For example:

- If Goal 1 is Satisfied and Goals 2 and 3 are Unsatisfied, then make the Scenario status dialog be “SDC–SUU”
- If Goal 1 and 2 are Satisfied and Goal 3 is Unsatisfied, then make the Scenario status dialog be “SDC–SSU.”

This script goes on to specify which Scenario status message (MakeDialogText) should be displayed to the player under each possible combination of Satisfied/Unsatisfied Goals.

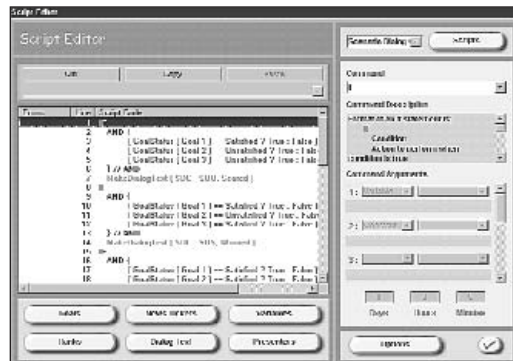


Fig. 33-12. The combinations of Goal Satisfaction dictate what your player will read in the Scenario status dialog.

## THE ABC'S OF WRITING INSTRUCTIONS

When writing instructions, it is helpful to state your instructions clearly before you start to build them in the Scenario creator. Most of your instructions will be communicated as “If, then” statements. For example, let’s say you want a News Ticker to appear when the player has built a School. The first step is to state what you want as an “If, then” statement like this:

**If the player builds a School, then show a News Ticker.**

The second step is to determine how the Scenario will know if the player has built a School. Let’s say there are three Schools in the city at the beginning of the Scenario. If the Scenario counts four Schools, we will know the player has built a new School. Our statement then becomes:

**Count the Schools. If there are four Schools, then show a News Ticker.**

Or

**Count the Schools. If there are more than three Schools, then show a News Ticker.**

This News Ticker would repeat over and over for the remainder of the Scenario (as long as there were four Schools). To set this to only repeat once, we would add a “Flag” Variable such as this:

**Count the Schools. If there are more than three Schools and the Flag is 0, then show a News Ticker and set the Flag to 1.**

The next time this script is read, the “if” statement would be false and the Scenario would skip the rest of the statement.





## USING VARIABLES IN NEWS TICKERS

You may insert any Variable in any News Ticker. This can be used to communicate numbers that change during Scenario play to the player.

For example, the player might have a Goal of lowering the crime rate. A News Ticker that includes a Variable that holds the crime rate is helpful.

News tickers with a Variable can be very helpful to you, the author of the Scenario, as well. You may want to create temporary News Ticker to gather information on your city to determine what the Goals for your Scenario should be.

For example, say you want the player to increase Agricultural tiles. Rather than trying to count each tile of Agricultural development, you set up a News Ticker that reports the number of Farm tiles it finds. Once you know how many Farm tiles you had in the beginning, it will be easier to set a Goal number for increased Farmland.

## QUICK TIPS ON SCENARIOS

### KEEPING THE RANK AND THE RESULTS DIALOG STRAIGHT

The Rank is the title you give the player at the end of the Scenario. Ranks are created in the Rank Manager.

The SetResultDialog command sets the ending message you want to have appear below the Rank. Results are created in the Dialog Text Manager.

## ORGANIZING WITH SSS AND UUU

If a Scenario has three Goals, there are eight possible combinations of Satisfied vs. Unsatisfied Scenario status results. The "Template for a Three Goal Scenario" uses a simple system to track these.

SSS = Goals 1, 2, and 3 are Satisfied.

SSU = Goals 1 and 2 are Satisfied, Goal 3 is Unsatisfied.

SUS = Goals 1 and 3 are Satisfied, Goal 2 is Unsatisfied.

USS = Goals 2 and 3 are Satisfied, Goal 1 is Unsatisfied.

UUS = Goals 1 and 2 are Unsatisfied, Goal 3 is Satisfied.

USU = Goals 1 and 3 are Unsatisfied, Goal 2 is Satisfied.

SUU = Goals 2 and 3 are Unsatisfied, Goal 1 is Satisfied.

UUU = Goals 1, 2, and 3 are Unsatisfied.

This makes it easy to track your Scenario status dialog changes and end Scenario results.

# BUILDING ARCHITECT PLUS

In *SimCity*, it's all about the buildings. You want to see the really cool, high value skyscrapers sprout from your city, and plunk down the coolest Reward buildings and real world Landmarks.



## NOTE

For owners of *SimCity 3000* standard edition, you can still use the original Building Architect Tool (BAT), available for free from [SimCity.com](http://SimCity.com). Note, however, buildings created with *Building Architect Plus* cannot be edited with BAT and cannot be imported in *SimCity 3000* standard edition.

Why stop there?

For some time now, the power to build your own structures has been yours. With *SimCity 3000 Unlimited*, however, that power is greater and more accessible than ever. Building Architect Plus enables mayors with architectural ambitions to construct, paint, decorate, and (in the form of “props”) populate any building their minds can envision.

What's more, Building Architect Plus makes placing User-Made Buildings (yours and those of your fellow mayors) in the game itself easier than ever.

Consult your *SimCity 3000 Unlimited* manual and its excellent tutorial for everything you need to construct your virtual dream home.

Two topics not covered in the manual are how to create your own details and props. Building Architect Plus ships several that are pre-made and ready to use; but what if none of those fits your vision?

Courtesy of Maxis, we've included instructions on creating custom details and props that'll make buildings uniquely yours.

## MAKING CUSTOM DETAILS

The first step to personalizing your buildings is the application of details: windows, doors, trim, etc. These essential external adornments are the hallmarks of a thoughtfully constructed building. When the details included with Building Architect Plus aren't enough, however, you can (with even basic skill) create your own details. Here's how.

## DETAILS VS. PAINTS

There is much confusion about the differences between paints and details.



**Paints** are exterior surfaces, covering entire stretches of walls, roofs, floors, etc. They are, in effect, the external appearance of the materials out of which your buildings are made.

**Details**, on the other hand, are objects placed on top of the paint. If you've ever constructed plastic models, think of details as the paste-on decals you put on after the paint dries. To engender even greater realism, details can have transparency, enabling you to see the painted surfaces beneath.

## MAKING DETAILS—TWO WAYS

There are two formats you can use to make detail art:

- Bitmap (.bmp) format for beginners
- Targa (.tga) format for more advanced users.

### MAKING NEW DETAILS—FILE REQUIREMENTS

To make your made-from-scratch details available, you must follow a few simple file formatting guidelines. Improperly formatted details will not show up in your palette and could render Building Architect Plus nonfunctional.

- Details must have a height and width that is some multiple of 16 pixels on a side. For example,  $16 \times 16$ ,  $32 \times 32$ ,  $48 \times 48$ ,  $16 \times 32$ ,  $32 \times 48$ , etc. Set image size in your graphic program's Options menu.
- Transparent areas of your detail must use the specific transparent color: *RGB value 255, 0, 255 (magenta)*.
- You must close Building Architect Plus and reopen it for any new details to appear in the palette.



#### NOTE

Bitmap details will not work with the original BAT.

## BEGINNERS: MAKING BITMAP-FORMATTED DETAILS SIMPLE TRANSPARENCY WITH BITMAPS

Using bitmap format instead of targa for your details is easier and more direct. Plus, most image editors support the format, even the Windows accessory, Microsoft Paint.

You make bitmaps transparent by designating a specific color to be transparent when the element is applied as a decal. Thus, any place that color is used will be transparent.

## WHAT YOU'LL NEED

It's hard to find an image editor that *doesn't* include bitmap formatting. If you've never worked with images before, however, you'll be just fine working with your built-in Microsoft Paint editor.

## LET'S MAKE A DETAIL

The actual artistry in detail creation is up to you. The mechanics of making them and getting them into Building Architect Plus, however, are outlined below.

1. **Start a new file. Make sure that it's the right size (see previous bulleted list) and that you're drawing in RGB colors.**
2. **Create your detail, whether by painting from scratch or pasting in an image you've copied from elsewhere.**
3. **To create transparent areas, set your color palette to RGB 255, 0, 255 (full saturation Red and Blue, zero saturation Green). Paint intended transparent areas in this color. (Be sure not to blend or alias to this pink color, or you will end up with pink "halos" around your details).**
4. **Save your detail to the custom details folder in \\Maxis\SimCity 3000 Unlimited\Apps\BACustom\Details\. If asked, save your file at 24 bits/pixel.**
5. **Restart the Building Architect and look in the "Custom" folder in the Details Mode.**

## ADVANCED: MAKING TARGA-FORMATTED DETAILS



### NOTE

These instructions work also for the original BAT.

## TARGA ALLOWS BLENDED TRANSPARENCY

Unlike bitmaps, targa-formatted images can use something called an "alpha channel." The alpha channel is an invisible layer on your image, paintable in gray-scale. When you use a targa image in a detail, the areas painted black will be transparent, white will be opaque, and gray will be partially transparent (depending on the balance of black and white).

Thus, transparency is more than an all-or-nothing effect. With targa details, you can have shades of transparency and add highlights to the underlying paint. Blending these kinds of details can create amazing illusions.

All of the included details in Building Architect Plus are in targa format.



## WHAT YOU NEED

Targa details can be created using any graphics program that supports the format. Microsoft Paint (built into Windows), however, is not one of them. There are several shareware and freeware options available online. For the sake of simplicity, however, this discussion focuses on two of the most common paint programs: Jasc's Paint Shop Pro (PSP) or Adobe's Photoshop. A working demo of PSP can be downloaded from their website.

## QUICK START

Making your own details doesn't have to mean building them from scratch. You can, instead, alter the details that came with Building Architect Plus to your own liking. Changing detail colors is the most common alteration. If the detail palette is narrowly missing your needs, follow these steps:

1. Copy the detail files (.tga format) you would like to change from the directories `\\Maxis\\SimCity 3000 Unlimited\\Apps\\Res\\BA\\Details\\Contemporary` or `...\\Details\\Traditional` to the directory `\\Maxis\\SimCity 3000 Unlimited\\Apps\\BACustom\\Details\\`. **(Warning: make copies! Do not move the files. Do not change the files in \\Res in any way or you may have to reinstall the entire game!)**
2. **Change the names of the copied files.** Duplicated file names won't appear in the palette.
3. Open these copied details in your graphics program.
4. Paint over the images with the new colors. You might also try adjusting the colors. PSP: "Colors," "Adjust." Photoshop: "Image," "Adjust," "Hue/ Saturation."
5. Save the files in targa (.tga) format, and restart Building Architect Plus. If PSP or Photoshop are not offering .tga format as an option, try "Save a Copy As..." instead of just "Save."
6. Now, restart Building Architect Plus. In the Details Mode Palette, look in the "Custom" folder. There, you should see your new details. The areas that were transparent before will remain so after your changes.

## TRANSPARENT ALPHA CHANNELS IN PSP (VERSION 5.0)

1. Create a new file. Make sure that it is a "legal" pixel size (see discussion in "Quick Start" section), and that it uses "1.6 million colors (24-bit)."
2. Create your detail, whether by painting from scratch or pasting in an image you've copied from elsewhere.

3. Now, choose absolute black (RGB 0, 0, 0) as your current color, and paint the areas of your detail that you want to be transparent.
4. On the menu at the top, select “Masks,” “New,” “From image....” In the dialog that pops up, make the source window “This Window” and create the mask from “any non-zero value.” Click OK, and the black areas of your image will change to a gray checkerboard.
5. On the menu at the top, select “Masks,” “Save to Alpha Channel....” Accept the default options and name the channel anything you like.
6. Save the file in targa (.tga) format to the directory `\\Maxis\SimCity 3000 Unlimited\Apps\BACustom\Details\`.

## USING PHOTOSHOP

1. Create a new file. Make sure that it is a “legal” pixel size (see previous discussion), and that it uses “RGB” color mode. “Contents” can be white or transparent and it can be any resolution, although 72 pixels/inch is recommended.
2. In the Layers window, create a new layer. (Click and hold the right-pointing arrow on the upper-right corner of the Layers window for a menu.)
3. In the new layer, create your detail, whether by painting from scratch or pasting in an image you’ve copied from elsewhere.
4. When you are done painting your detail, go to the menu and choose “Select,” and “All” to select the entire image in your new layer. Then “Edit” and “Copy” from the menu (or **Ctrl** + C) to copy the entire image.
5. In the Layers window, select the “Channels” tab (or on the menu, “Windows,” “Show Channels”).
6. Create a new channel (use the same arrow menu as for new layer). Accept the defaults for the name and “masked areas.” A new alpha channel will appear in your Channels window; by default it will be black and current.
7. On the top menu, select “Edit,” and “Paste.” This will paste a grayed version of your detail on top of the black alpha channel.
8. Make white (RGB 255, 255, 255) your current color. With the pasted selection still active, select from the top menu “Edit” and “Fill,” and use “foreground color” (which should be white).
9. You might want to double check that your alpha layer is aligned with your RGB layers—“Paste” is not always accurate. Make both channels visible and move the entire alpha channel as needed.



10. If you want parts of your detail to blend with the background paint on the User-Made Building (i.e., semi-transparent effect), then use a gray color in the alpha channel instead of white. The darker the gray, the more the background will show through.
11. Under “File,” select “Save a Copy...” and save the file in targa (.tga) format to the directory `\\Maxis\SimCity 3000 Unlimited\Apps\BACustom\Details\`. Save it at 32 bits/pixel.

## CREATING CUSTOM PROPS FOR BUILDING ARCHITECT PLUS

Creating props for User-Made Buildings is not easy; you'll need plenty of patience and willpower to make your vision come to life. Using props is, however, a very powerful and flexible way to enhance any building.

All you need is an idea and a basic graphics editing program.

### WHAT IS A PROP?

Props, as you know from Building Architect Plus, are objects that can be placed around your building. They offer substantially more detail than basic block buildings, and can be viewed from all sides.

Props can be trees on a lawn, cars in a driveway, fountains in a backyard—anything that can adorn and complement a building.

### QUICK START

Actually, props are simply sets of flat images—called “sprites”—set up to create the illusion of an object that can be rotated and viewed from all sides. To create a prop, you need to create an image of the object from four positions and then create a special text file—called a .met file—to dictate how the images will be arranged and presented.

### THE BUILDING ARCHITECT PLUS PROP FORMAT

To make your own props, you must follow a few simple file formatting guidelines. Improperly formatted details will not work or rotate properly.



## THREE APPROACHES

These tips give you three ways that you might go about creating custom props.

- The easiest way would be to take *SimCity 3000 Unlimited* snapshots and, using an image editor, crop out the items you want to use as props. This approach will be limited to what already appears in the game, but there are plenty of props from which to choose.
- You can also paint your own props from scratch or modify images copied from elsewhere. This is the most flexible, yet probably the most difficult, method for making custom props. Experienced artists only need apply.
- The way Maxis makes props is with a 3D modeling tool. By rendering the model from the correct angles in the right lighting, you get a prop that looks like it belongs in the game.



### NOTE

The sections refer to a template file that can be downloaded at [http://www.simcity.com/us/simexchange/downloads/bat\\_plus\\_template/template.zip](http://www.simcity.com/us/simexchange/downloads/bat_plus_template/template.zip)

### THE .BLD FILE

One final word about custom props in Building Architect Plus: as with all custom art on User-Made Buildings (paints and details) custom props images are saved in the actual building .bld file. This makes it possible for others to use your building with your props after downloading it from the Building Exchange. Therefore, adding more custom props to a User-Made Building causes the file size of the .bld file to swell. Using several custom props generates potentially huge files (in the megabytes)—unwieldy to load and impractical for others to download.

## CUSTOM PROPS MADE EASY (SORT OF)

The really easy way to create your own props doesn't require any special tools or even much artistic talent. It's really quite simple to "touch up" props created by others and, with a little tweaking, make them your own.

To save even more effort, you can simply have the prop look the same from all four sides (see the following "composing the .met file").

### ALTERING EXISTING PROPS

Making your own props is tricky business. The easiest way to get started, however, is to edit already functioning props.



## COPYING IMAGES

If you look in the `\SimCity 3000 Unlimited\Apps\BACustom\Props` directory, you'll find a handful of useful files. You may also try copying some of the props installed with the game itself (in `\SimCity 3000 Unlimited\Apps\Res\BA\PROPS`).



### NOTE

**Do not** edit the files in these directories. Instead, **copy** them to `\SimCity 3000 Unlimited\Apps\BACustom\Props` first and **rename** them.

## EDITING IMAGES

Prop images are bitmaps (.bmp) and can, therefore, be altered in any image editor—Microsoft Paint will do just fine. You can change any element of the image, but be careful about enlarging it. If you make it too big, Building Architect Plus won't be able to read it. Also, make sure the areas in pink are not altered; this can result in pink halos around your props.

When you've gotten the prop just the way you want it, you're ready to import it into Building Architect Plus. See the directions under "The Building Architect Plus Format" to get the prop into the program.

## CLIP FROM THE GAME

A second method is to take some screen shots from your cities in *SimCity 3000 Unlimited* and convert them into props. Put a Ferris wheel on your lawn, a flying saucer next to the convenience store, or the Statue of Liberty in a trailer park.

## SNAPSHOTS

The *SimCity 3000 Unlimited* Snapshot Tool can serve this function, but it compresses images and makes objects' edges blurry. Better to use the **(PRINT SCREEN)** button on your keyboard (which copies the current screen to the clipboard) and then "paste" into a new image file.

## SCALE

To look right, all props have to adhere to a fixed scale. Anything taken from the game—even at the closest zoom—will still be only half of the required scale.

To use in-game objects, zoom in as close as you can and press **(PRINT SCREEN)**. Then, in your graphics program, scale the image to 200 percent.

## CROPPING

Next, crop the image to include just the object that you want to make a prop.

A quick way to do this is to paint every pixel in the image that isn't a part of the object—the background—in pink (RGB 255, 0, 255). Avoid painting “blends,” which leave a bunch of *almost pink* pixels around your object; these create pink “halos” around your props.

Perhaps a better way, however, would be to use the Lasso Tool to select the object by its irregular shape, copy it, and then paste it into an appropriate template file (see following text). Then you may continue to clean up the rough edges by erasing or painting unwanted pixels pink.

Go to “The Final Steps” next.

## PAINTING PROPS FROM SCRATCH

More dedicated artists may want to construct their props from scratch. It's up to you, but it's a very difficult job.

To paint a prop, you need an image editing program. Microsoft Paint will do, but most other programs give you much more power and flexibility. You also need to use Notepad, a simple text editor that also comes with Windows, for writing a configuration file for your custom prop.

You'll probably want to use one of the many “prop template files” available for download at *SimCity.com*. These templates are pre-configured to work properly in Building Architect Plus. You'll need to paste your rendered props into these template files to get the scale and alignments correct.

See “Choosing Image File Templates.”

## PAINTING PROPS

Painting props is not easy, and it may take a lot of trial and error to get good results. Remember, you need to paint four sides!

If you are up to the challenge, here are some things that might help you get your props to look right in the Building Architect Plus and *SimCity 3000 Unlimited*.

## SIZE AND SCALE

A Building Architect Plus block is approximately *2 meters on a side* and drawn 32 pixels wide. This can vary a bit, but it's a good rule of thumb. Imagine your props compared to these blocks to give you a good idea of scale. You might try building in one of the template files to get the idea.



## VIEWPOINT ORIENTATION

Buildings and props in the Building Architect Plus and *SimCity 3000 Unlimited* are orthogonally projected (i.e., no perspective!) and rotated 45 degrees. The angle of view is 30 degrees from horizontal. Notice how this creates a  $1 \times 2$  pixel aspect for horizontal edges in the template files. This is a useful rule to remember!

## LIGHTING AND SHADING

Lighting and shading are difficult enough in any painting task. The lighting in *SimCity 3000 Unlimited* is very specific: the faces in the light have a warmer tone (more red) and the shaded faces are cooler (more blue). If you want your hand-painted props to match, compare your work against a snapshot from the game.

Also, notice that the lighting switches directions with every rotation. Your first rotation will be lit from the right, the second rotation lit from the left, the third from the right, and the fourth from the left.

Go to “The Final Steps” next.

## CREATING PROP IMAGES FROM 3D MODELS

It is easiest to create from-scratch custom props in a 3D modeling program. There are a lot of them out there—some cheap, some very expensive. There’s even some shareware you can use. Maxis uses a program called 3D Studio Max, by Kinetix (very expensive). These directions, however, are generalized to work with most rendering programs.

To paint a prop, you need an image editing program. Microsoft Paint will do, but most other programs give you much more power and flexibility. You’ll need this software to take the images you’ve rendered in the modeling program and put them into the format that Building Architect Plus uses. Finally, you need to use Notepad, a simple text editor that also comes with Windows, for writing a configuration file for your custom prop.

You’ll probably want to use one of the many “prop template files” available for download at *SimCity.com*. These templates are pre-configured to work properly in Building Architect Plus. You need to paste your rendered props into these template files to get the scale and alignments correct.

See “Choosing Image File Templates.”

## RENDERING

The actual creation of your prop is up to you. When you’re ready to render them, however, keep these factors in mind.

## LIGHTS

If you haven't noticed already, *SimCity 3000 Unlimited* buildings are lit equally from two sides: the north-east and the south-west. We suggest setting up a series of "directional"



Fig. 34-1. The directional light system used in *SimCity 3000 Unlimited*

lights in your scene (directional, meaning infinitely parallel light sources with no fall-off).

Have one light pointing in each direction of the x-axis with an RGB color value of 255, 249, 232 (a warm color), and two more in opposite directions along the y-axis with an RGB value of 98, 98, 133 (a cool color).

If your lights have a multiplier, set them to 1.30. Locate two more free-directional light sources, both with RGB 198, 198, 198 (multiplier 0.75) facing downward. Tilt one 30 degrees (from vertical) to create one diagonal, and the other 30 degrees in the opposite direction.

If you follow this, you will have set up a lighting scheme identical to the one used for *SimCity 3000 Unlimited* buildings.

## CAMERA

You need four images of your sprite and, therefore, four camera points. You could set up four separate cameras or just one camera animation of four frames that moves to the four points. Be sure that your camera is using an orthographic or isometric projection (not perspective). If your renderer does not do this, then you need to locate your camera very far from your object and use the highest possible zoom.

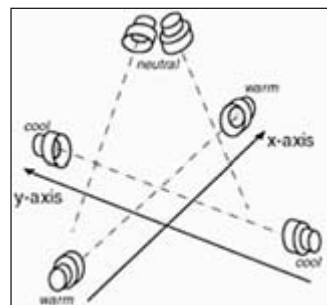


Fig. 34-2. The camera set-up for buildings in *SimCity 3000 Unlimited*

The cameras are diagonal to the lighting axes described above. The cameras should be pointing downward 30 degrees from horizontal.

Getting the scale and camera distance correct might take some trial and error. If you have an object that you expect to be the size of a single Building Architect Plus block, then it should render to be 32 pixels wide. Likewise, if it will be  $8 \times 8$  blocks in size, then it should be 256 pixels wide (32 times 8 equals 256).



## ACTION!

Finally, when you instruct the program to render, be sure that it does not anti-alias the image to the background; this gives unnatural “halo” effects when you use the images in the Building Architect Plus. You’ll probably want the background of the rendered images to be colored RGB 255, 0, 255. Render to .bmp format. The total size of the rendered images does not matter, (as you’ll be cropping and positioning them afterward anyway) as long as the scale of the object is correct.

Go to “The Final Steps” next.

## THE FINAL STEPS

### CHOOSING IMAGE FILE TEMPLATES

Imagine your prop being packaged inside a large box composed entirely of Building Architect Plus blocks. A bicycle, for instance, would probably fit inside one block (one block is approximately 2 meters cubed). A car might require a box 2 blocks wide, 3 blocks long, and 2 blocks tall:  $2 \times 3 \times 2$ . A stairway might be 1 block wide, 2 blocks long, and 3 blocks tall:  $1 \times 2 \times 3$ . Understanding the size of your prop will help you to pick the right prop template file.

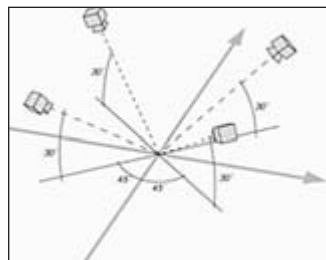


Fig. 34-3.  $1 \times 3 \times 3$  template



#### NOTE

For technical reasons, the horizontal dimensions of these “boxes” must be odd numbers, so the  $2 \times 3 \times 1$  box for the car would have to go to a larger-sized box— $3 \times 3 \times 1$ . The stair would need to use a box that is  $1 \times 3 \times 3$ .

Now you can choose the template that fits your prop (from the files downloadable at *SimCity.com*). Try opening, for example, the  $1 \times 3 \times 3$  template for the stair in an image editing program; the outlines of a  $1 \times 3 \times 3$  box are already drawn in this file. If you pasted an image of a stair in here, it would run from the top left to the bottom right. But what if you rotated the image 90 degrees? For long props like this, you will also have to use the symmetrical template file  $3 \times 1 \times 3$ .

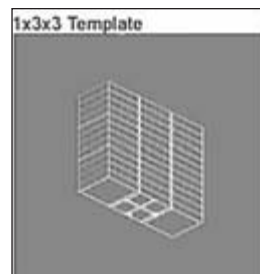


Fig. 34-4.  $1 \times 3 \times 3$  template

## ALIGNING YOUR PROP IMAGES

Once the prop has been rendered, use your image editing program to copy the rendered prop images into the template files. Copy only the prop and not the background; when you paste the image you'll be able to see the box outlines of the template.

After you've pasted the image, move it around so that it fits cleanly within the box outline. Any parts that fall outside the box will not be shown in Building Architect Plus. Be sure that the prop sits at the bottom of the box—as it would in a real box—not too close to the front edges, but centered in the base. Only experience allows you to properly visualize this.

Now, paint over the box outlines using the pink color—RGB 255, 0, 255. If you are working in layers, flatten the image and save it as a .bmp file.

Repeat this for the three other images you rendered, saving each one with a different name (preferably numbered, such as "prop1.bmp," "prop2.bmp," "prop3.bmp," and "prop4.bmp"). If your object is symmetrical, such as a column, you'll only have to include two images.

Imagine the object sitting in the same box, viewed from all four angles. If you are doing something long and narrow, such as stairs, you need to use the second, symmetrical template file for every other image.

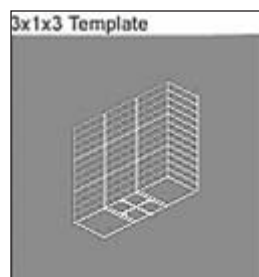


Fig. 34-5. A long stair alternating between  $3 \times 1 \times 3$  and  $1 \times 3 \times 3$  templates



### TIP

If you are placing an image such as the car in the  $3 \times 3 \times 1$  template, but it doesn't really need all that room, try aligning it off-center to one side—leaving those unneeded sections of the block empty. This helps if you want to place your props closer together.

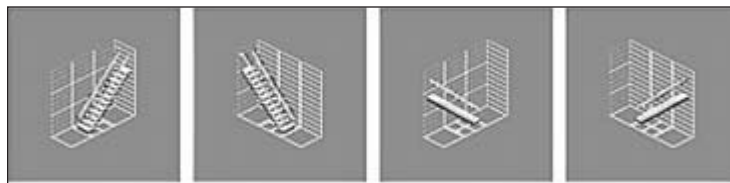


Fig. 34-6. Four rotations of a car within a  $3 \times 3 \times 1$  template

When you are finished creating and aligning your prop images, be sure to save them in the `\SimCity 3000 Unlimited\Apps\BACustom\Props` directory.





## COMPOSING THE .MET FILE

All props need a .met file (short for metric file) to tell Building Architect Plus how to use them. Each prop can have its own .met file, or you can put all .met data into one .met file. Make sure, however, that the .met file is in the same directory as your prop image files.

Use a basic text editor such as Notepad to write your .met files.

Each line in the .met file is the instruction to apply to each prop image file. For example, let's say that prop1.bmp is a stair that used the  $1 \times 3 \times 3$  template and that you've also created prop2.bmp, prop3.bmp, and prop4.bmp for each of the rotations of that stair. The first line of your .met file should say this:

```
1,3,3: "prop1.bmp," "prop2.bmp," "prop3.bmp," "prop4.bmp"
```

The first three numbers identify the template file used to create prop1.bmp—the first mentioned image file in the .met line. The three other image files on the line refer to the rotations of the first image file, in order of counterclockwise rotation.

The second line of your .met file would read like this:

```
3,1,3: "prop2.bmp," "prop3.bmp," "prop4.bmp," "prop1.bmp"
```

The function is the same as line one, but the template and order are different. The template file for prop2.bmp is  $3 \times 1 \times 3$  because the stairs are long and narrow and rotating 90 degrees would require the box to orient the other direction. Also, the sequence of rotations is shifted by one: prop3.bmp will be the next rotation counterclockwise after prop2.bmp, and so on.

The entire .met file for this stair should read:

```
1,3,3: "prop1.bmp," "prop2.bmp," "prop3.bmp," "prop4.bmp"
3,1,3: "prop2.bmp," "prop3.bmp," "prop4.bmp," "prop1.bmp"
1,3,3: "prop3.bmp," "prop4.bmp," "prop1.bmp," "prop2.bmp"
3,1,3: "prop4.bmp," "prop1.bmp," "prop2.bmp," "prop3.bmp"
```

For good measure, add a few blank lines at the end of your .met file. Building Architect Plus sometimes gets confused reading these files when it doesn't find these blank lines.

Save the .met file as any name you like, but with ".met" at the end. Be sure that this file and all the image files you've used are in the *\SimCity 3000 Unlimited\Apps\BACustom\Props* directory (or in a subdirectory within it). Restart Building Architect Plus, go to Props and select "Custom" in the pull down menu, and there you should see the fruits of your labor!



# THE SIMCITY COMMUNITY

Sharing is, indeed, a virtue. After mastering the intricacies of *SimCity 3000 Unlimited*, what's the fun of keeping your city all to yourself? Why build that ornate model of your local historic public restroom in Building Architect Plus if you can't pass it around for all to enjoy?



## NOTE

Though owners of both the standard version and *SimCity 3000 Unlimited* can use many of the articles and features of SimCity.com, most of the information in this chapter refers to *Unlimited* users. If you own the standard edition, look on the website for information that works with your version of the game.



Fig. 35-1. SimCity.com is the hub of *SimCity* mania.

For some time now, SimCity.com and the SimCity Exchange have been the central meeting place/trading post for the worldwide, multinational *SimCity* community. Now, however, with the advanced power-tools in *SimCity 3000 Unlimited*, that community is on the verge of unprecedented expansion.



## NOTE



With the Visit SimCity Exchange button located on your screen (above the RCI Indicator), as well as in Building Architect Plus, there's no reason not to reach out and touch the massive world of *SimCity*. If you have Internet access, one push of the button will take you right there with no muss and no fuss.



# SIMCITY EXCHANGE

The following are just a few of the things that await you online in the SimCity Exchange.

## BUILDINGS

The User-Made Buildings section is the place to upload your own creations or download those of others. Buildings are searchable, rated, and listed in several categories including size, popularity, and rating.



Fig. 35-2. The SimCity Exchange is the place to show your work to others and exponentially expand your own *SimCity* experience.

## SCENARIOS

User-Built Scenarios can dramatically expand the challenges re-introduced in *SimCity 3000 Unlimited*. Try out the machinations of your fellow mayors, and see what their devious minds have constructed; or, upload your own Scenarios to inflict your imagination on others. Scenarios are rated, searchable, and indexed by rating, popularity, and difficulty level.

## CITIES

Entire cities can be uploaded and downloaded from this virtual trading post. Proud of your gaudy educational accomplishments? Post it and let the envy roll in.

Cities are searchable and rated, and they are indexed by a dizzying array of categories.

## MAXIS DOWNLOADS

The next section of SimCity Exchange is the place to get the latest from *Maxis*, the creators of *SimCity*.

Look here for new Landmarks, Maps, and Building Architect elements designed by the masters.

Also, here are example Scenario scripts, the otherwise unavailable instructions that underlie the *Maxis*-made Scenarios that appear in *SimCity 3000 Unlimited*.



## CONTESTS/SPOTLIGHTS

SimCity Exchange also includes a Hall of Fame, announcements of Contests, and a Teacher's Guide to using *SimCity 3000 Unlimited* in the classroom.

## SIMCITY.COM

There's plenty else to see beyond the SimCity Exchange. Here you can find *SimCity* news, links to fan websites, chat, bulletin board, and *SimCity* tips and tricks (though, as an owner of this book, you won't need any of those).

You can even play the original *SimCity Classic Live!* through your browser.

## CONCLUSION

Though this book ends here, you've yet to begin your *SimCity* experience. We've joked that no *SimCity* is an island—nor is any *SimCity* owner. There are literally millions of others out there who, like you, hunger for more.

Luckily, *SimCity 3000 Unlimited* is the most expandable and creativity-inspiring *SimCity* ever. Even those who've never participated in online communities will find expression among their fellow *SimCity* Mayors.

Reach out, dial up, and drop in, Your Honor. We're waiting.



# APPENDIX A: CHEATS AND SECRETS

Laborious sifting through the original source code of *SimCity 3000* has revealed a dark little secret or two. Yes, indeed, deep down, between the subroutines for llama grooming and (for some strange reason) a recipe for oatmeal cookies, there lie a boatload of cheats and codes you weren't meant to see.

These codes can give you money, buildings, and power, but they will take some of the fun out of life. Use them at your discretion.

## THE BUILDING CHEAT

To place any building (in unlimited quantities) from your current building set, follow this routine:

1. Open the Power Plants window and close it.
2. Open the Rewards & Opportunities window and close it.
3. Open the Garbage window and close it.

Now, when you open the Landmarks window, you'll have the complete list of all buildings.

To remember this cheat, think of it this way: it offers you *power* and *rewards*, but you'll feel like *garbage* doing it.

## THE CHEAT ENTRY BOX

Press **Alt** + **Ctrl** + **Shift** + **C** (on PC) or **Cmd** + **Option** + **Shift** + **C** (on Mac) to access the secret programmers' debug box. This tool is your rabbit hole into the heart of *SimCity 3000*, so use it wisely.



Fig. A-1. The Cheat Entry text box

# CHEATS

## call cousin vinnie

After you type this code, go to the Meet button. Listed among the petitioners and advice, you'll see the item "Local Fundraising Event." Click on it to meet with a very shady character.

If you accept his offer, you instantly get \$100,000, no strings attached (or so he says).

If, however, you reject his offer, he rewards you for your honesty with another code: zyxxwvu.

## zyxxwvu

This code *only works if you've met with Vinnie* and rejected his offer. Type this code and go to the Rewards & Opportunities window. Here you'll find your clandestine prize on the list: the SimCity Castle.



### CROSS REFERENCE

For statistics on the SimCity Castle, see Chapter 27.

This immodest structure is cool to look at and has absolutely gaudy effects on surrounding structures. It does reveal to the world, however, that you've cheated, so don't use it if you plan to post your city in the SimCity Exchange.

## i am weak

This cheat allows you to place any structure, zone, or landscape at no cost. Demolition, however, will still cost. And, yes, it does make you *very* weak.

## power to the masses

All Power Plants become available regardless of current year.



Fig. A-2. Your meeting with Cousin Vinnie feels a bit nefarious.



Fig. A-3. SimCity Castle is your prize if you turn down Cousin Vinnie and use the code he gives you.



## garbage in, garbage out

All garbage structures become available regardless of year. Don't forget the comma.

## water in the desert

All water structures become available regardless of year.

## pay tribute to your king

All Reward buildings not already in your city appear in the Rewards & Opportunities window.

## let's make a deal

All Business deals not already accepted appear in your Meeting window.

## i love red tape

All Ordinances become available regardless of year or prerequisites.

## nerdz rool

Alters developer rules to convert any redeveloped dirty Industrial buildings into clean Industrial buildings regardless of Ordinances or your city's Education Quotient. You can either wait for the transition to happen by itself or take matters into your own hands by demolishing your dirty Industrial zones and letting them grow back clean and bright.

If you want this squeaky clean facade to persist, you must reenter the code each time you play or else all buildings (following *correct* developer rules) will revert to their actual (dirty) states.

## ufo swarm

Enter this code and then use the Start Disaster menu to summon a UFO attack. An armada of UFOs will appear over your city.



Fig. A-4. The easy way to clean industry and low pollution



Fig. A-5. They're everywhere! To inflict some truly awesome intergalactic Disaster on your Sims, try out this cheat.



## the birds

Seagulls appear over your city and tell you what they think of your grand urban plans. Plop!



### NOTE

The flock can be *very* hard to see.

## salt on

Converts all water to salt water. This disables all of your Pumping Stations.

## salt off

Converts all water to fresh water. This disables your Desalinization Plants and breaks any water connections to neighbors—if you have any deals in place, they'll terminate and you'll be charged any applicable penalties.

## Terrain One Down

Lowers all terrain by one level. Destroys all buildings.

## Terrain One Up

Raises all terrain by one level. Destroys all buildings.

## Terrain Ten Down

Lowers all terrain by 10 levels. Destroys all buildings.

## Terrain Ten Up

Raises all terrain by 10 levels. Destroys all buildings.

## simon says...

Whatever you type after “simon says” will appear verbatim in the News Ticker.

## stop forcing advice

Stops your advisors from offering advice in the News Ticker or Meeting window. All other messages and meetings (with petitioners, neighbors, and business dealers) still appear in your Meeting window and all other kinds of News Ticker messages are unaffected.



## TICKER RESPONSES

Sometimes having the wrong code is more fun than having the right one. Type in these false codes and look to the News Ticker for a good chuckle.

- 1234
- advisor
- bat
- broccoli
- easter egg
- electronic arts
- erts
- FUND
- fund
- hello
- HELP
- help
- llama
- MAXIS
- maxis
- mayor
- money
- moremoney
- porntipsguzzardo
- sc3k
- sim
- SIM
- simcity
- skurk
- ticker
- will wright

**A****APPENDIX A:  
CHEATS AND SECRETS**

# APPENDIX B: BUILDING DIRECTORY

## NORTH AMERICAN SET

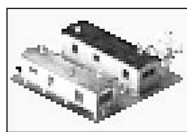
### RESIDENTIAL (LOW DENSITY/LOW LAND VALUE)



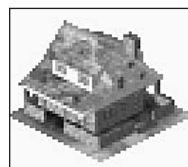
Squat St.



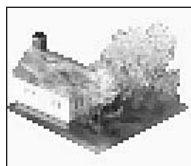
Meager Pl.



Zeke's Cousin's Home



Pitched Roof Cottage



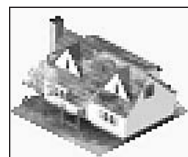
Dingy Ave.



Zeke's Home



Zeke's Uncle's Home



White Cottage

### RESIDENTIAL (LOW DENSITY/MEDIUM LAND VALUE)



Ranchero Dr.



Elem Station



Quality Dr.



Meek Cr.



High St.



Middle Rd.



Elm St.



Walton's Dream



## RESIDENTIAL (LOW DENSITY/HIGH LAND VALUE)



Quigley Acres



Ike's House



Onderdonk House



Fancy House



Stratton Hall



Bayberry Manor

## RESIDENTIAL (MEDIUM DENSITY/LOW LAND VALUE)



Sketchy Towers



Land's End Apartments



Edgewood Apartments



Bleak's Abode

## RESIDENTIAL (MEDIUM DENSITY/MEDIUM LAND VALUE)



Middleton Row Houses



Brownstone



Goodplace Arms



Pinky's Plaza



Row House



Kevin Way Row Houses

## RESIDENTIAL (MEDIUM DENSITY/HIGH LAND VALUE)



Plush Manor



Hampton's Apartments



Stoclet Apartments



Villard Apartments



Palazzo Apartments

## RESIDENTIAL (HIGH DENSITY/LOW LAND VALUE)



Hope Towers



Red Brick Apartments



Project Feelgood



Stoic Arms Apartments



Rock Bottom Terrace

## RESIDENTIAL (HIGH DENSITY/MEDIUM LAND VALUE)



Even Keel Estate



Dark Brick Abode



Sheza Brick Haus



Brick Arms Apartments



Red Brick Apts.



Hacienda Ct.



Comfort Towers



## RESIDENTIAL (HIGH DENSITY/HIGH LAND VALUE)



Svelte Towers



Royal Manor



The Fritz



Villars Apartments



Regal Tower



Mullet Hi-Rise

## COMMERCIAL (LOW DENSITY/LOW LAND VALUE)



Corner Gas



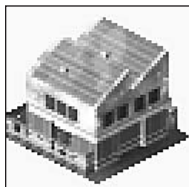
Lick's Ice Cream



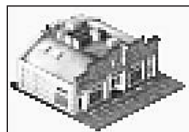
Ben's Diner



The Relax Motel



U-Store-It



Bowling Accountancy



Pump and Scoot Gas Station

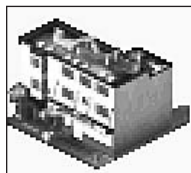


Crazy Larry's Flea Market

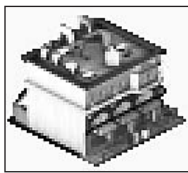
B

APPENDIX B:  
BUILDING DIRECTORY

## COMMERCIAL (LOW DENSITY/HIGH LAND VALUE)



Micro Shops



Fashion Plus



Buff's Athletic Club



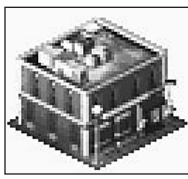
Precious Shops



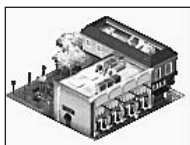
Clothing Boutique



Insurance Office



Toy Store



FooFoo Shops



DePalma Savings Bank

## COMMERCIAL (MEDIUM DENSITY/LOW LAND VALUE)



Marky Market



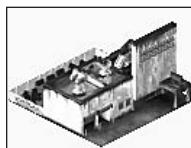
Buy and Buy Retail



Bradbury Building



Shicoff Multiplex



Ted's Tires



Corner Grocer



Shop & Smile Mall



See and Want Emporium

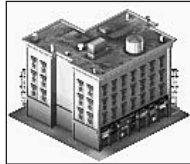




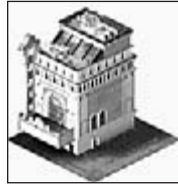
## COMMERCIAL (MEDIUM DENSITY/HIGH LAND VALUE)



Hurt Plaza



Drumm Building



Maxis Theater



Eugene Marazzani  
Memorial Plaza



Lansburgh Building



Aquilina Building



Smiley Sons and  
Daughters Foundation

## COMMERCIAL (HIGH DENSITY/LOW LAND VALUE)



Arbor Plaza



Amalgamated  
Amalgamations Inc.



Retail Exchange



Insurance Plaza



Parking Garage



Spicoli Center



Wilkinson Tower



Triangle Terrace

B

APPENDIX B:  
BUILDING DIRECTORY

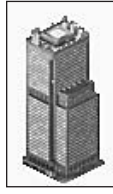
## COMMERCIAL (HIGH DENSITY/HIGH LAND VALUE)



Kong Tower



Kate Foundation



Justin Brown Plaza



Federal Building



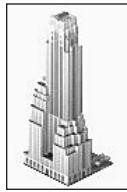
Gold Tower



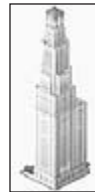
Silver Tower



GrayMatter Pl.



Corporate Ground  
Zero Plaza



Quigley Insurance

## INDUSTRIAL (LOW DENSITY/DIRTY)



Water Tower



Small Storage Facility



Barrel O' Fun Motor  
Oil Recycle



Smog-o-matic



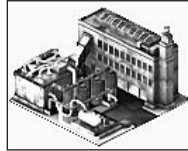
Salvage Yard



## INDUSTRIAL (MEDIUM DENSITY/DIRTY)



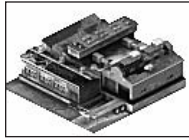
Acid and Base Manufacturing



Cloth Dyeing Facility



Creamy Filling Consortium



Factory

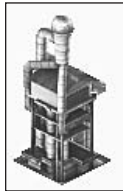


Furnaces

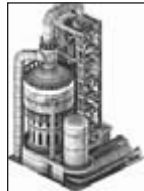


Petro Plant

## INDUSTRIAL (HIGH DENSITY/DIRTY)



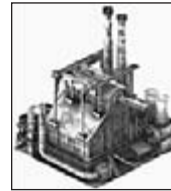
Soot Sifter



Gurgle and Smelt



Muck Factory



Armpit Central



Double Stogie Enterprise

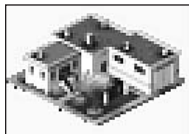


Factory Barn



Mine

## INDUSTRIAL (LOW DENSITY/CLEAN)



Utility Muffin Research



Auto Parts Warehouse



Glass Shop



Industrial Lab



Storage Tanks

B

APPENDIX B:  
BUILDING DIRECTORY

## INDUSTRIAL (MEDIUM DENSITY/CLEAN)



Construction Tools Plant



Car Factory



Building Supply Warehouse



Building Supply Manufacturer



Software Studio



Trucks O'Plenty

## INDUSTRIAL (HIGH DENSITY/CLEAN)



Shiny Things Inc.



Mill



Agate Marble Inc.



Auto Plant



SimMars Research & Testing Facility

## INDUSTRIAL (AGRICULTURE)



Chicken Coop



Tool Shed



Lumber Mill



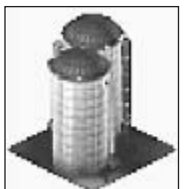
Greenhouse



Barn



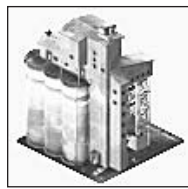
Windmill



Hans Silo



Farm House



Grain Silos



# EUROPEAN BUILDING SET

## RESIDENTIAL (LOW DENSITY/LOW LAND VALUE)



Crumb St.



Krass Pl.



Grand Pa's Haus



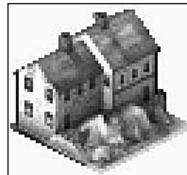
Uber-Bob's Cottage



Walton's Nightmare

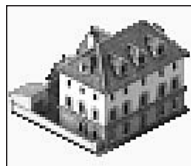


Slum Haus



Old Charmer

## RESIDENTIAL (LOW DENSITY/MEDIUM LAND VALUE)



Blue Roofer



House of Veselay



Ursula's Farm



Slant Barn



Ranchero Dr./Roque-Gagaec



Amber Haus



Hilke House



Low Down Brown



Helga's Haus

B

APPENDIX B:  
BUILDING DIRECTORY

## RESIDENTIAL (LOW DENSITY/HIGH LAND VALUE)



Klassik Estate



VollerHaus



Amstadt Villa



Villa Blume



Bueller's Haus

## RESIDENTIAL (MEDIUM DENSITY/LOW LAND VALUE)



Freidrich Towers



Yellow Slums



Wilhelm's Abode

## RESIDENTIAL (MEDIUM DENSITY/MEDIUM LAND VALUE)



Heidi



Escher Square



Peter's Pl.



The Cannery



Goodheart Gardens



Gelbes Wohnhaus



## RESIDENTIAL (MEDIUM DENSITY/HIGH VALUE)



Tower Manor



Martin's Apartments



ResidenzSonnenblick



PalazzoMorini



People's Plaza

## RESIDENTIAL (HIGH DENSITY/LOW LAND VALUE)



Grungy Apartments



Ippen Towers



Teapot Terrace



Projekt Hoffnung

## RESIDENTIAL (HIGH DENSITY/MEDIUM LAND VALUE)



Valkrye Tower



Hans Hanelore



Luntz Wohnungen



Moderne  
Stadwohnungen



Neue Wohngemein  
Schaff



Pyramiden Wohnungen

B

APPENDIX B:  
BUILDING DIRECTORY



## RESIDENTIAL (HIGH DENSITY/HIGH LAND VALUE)



Trummer Tower



Markel Wohnungen



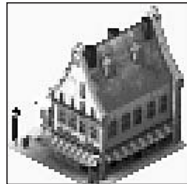
ResidenzRegina



Autorestaurant



Diesel Dreams Garage



Slick's Ice Cream



Hotel Sonne



Old Diner



Accurate Accountancy



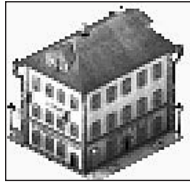
Lagerhouse



Strassen Market



## COMMERCIAL (LOW DENSITY/HIGH LAND VALUE)



Investigator's Office



Toddler Tot Shop



Buechner's Boutique



Hoffbrau Hall



La de da Shops



Colossal Corporation



Han's Spa



Spenditall Savings Bank

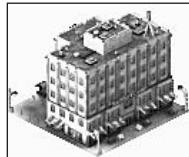


Super Store

## COMMERCIAL (MEDIUM DENSITY/LOW LAND VALUE)



Gustav's Grocery



Nachbar's Laden



Hip Hop Happening Mall



Mammoth Multiplex



Peter's Garage



Brautwerst's Building



Consumer Consumption  
Retail

## COMMERCIAL (MEDIUM DENSITY/HIGH LAND VALUE)



Arrow Plaza



Strand Hotel



Hoch Haus



Jenna's Son's and  
Daughter's Foundation



Mayem Memorial Plaza



Tattoo Museum



Claudia's Building

## COMMERCIAL (HIGH DENSITY/LOW LAND VALUE)



Kuruptz Inc.



Evergreen Exchange

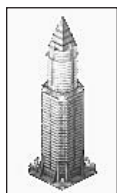


Jubilee Tower



Harris Terrace

## COMMERCIAL (HIGH DENSITY/HIGH LAND VALUE)



Super Spur



Too Tall Tower



Frankfurt Foundation



Creighton's Corporate  
Plaza



Zachary Thomas  
Insurance



## INDUSTRIAL (AGRICULTURE)



Heidi Silo



Bauern Haus

## ASIAN BUILDING SET

### RESIDENTIAL (LOW DENSITY/LOW LAND VALUE)



Sushi St.



Hsu Pl.



Mr. Chen's Cousin's Home



Kamagaland Cottage



Golden Ave.



Mr. Chen's Home



Mr. Chen's Uncle's Home



In-In Cottage

B

APPENDIX B:  
BUILDING DIRECTORY

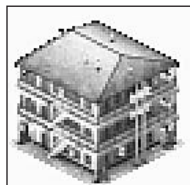
## RESIDENTIAL (LOW DENSITY/MEDIUM LAND VALUE)



Chan Cir.



Dragon Dr.



Sunflower Station



Tempura Dr.



Hiroko's House



Yoshida Rd.

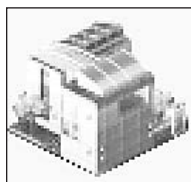


Pearl St.



Madame Chi's Dream

## RESIDENTIAL (LOW DENSITY/HIGH LAND VALUE)



Takai Pl.



General Mai's Manor



Wind Chime House



Szechwan Suites



Pioneer Memorial Hall



Shou Jen House



## RESIDENTIAL (MEDIUM DENSITY/LOW LAND VALUE)



Sho Sei Tenements



Chiisai Pl.



Ai-Ya Arms



Hinomaru Apartments

## RESIDENTIAL (MEDIUM DENSITY/MEDIUM LAND VALUE)



Pagoda Plaza



Cathay House



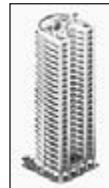
Three Brothers Building



T.C. Wong's House

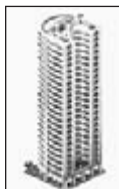


Won-Won Apartments



Spring Row Houses

## RESIDENTIAL (MEDIUM DENSITY/HIGH LAND VALUE)



Sabai Dee Dr.



#7 Samurai Way



Lin-Yuan Apartments



New Wong Apartments



Stowaway Apartments

B

APPENDIX B:  
BUILDING DIRECTORY

## RESIDENTIAL (HIGH DENSITY/LOW LAND VALUE)



Shangri-La Apartments



North Sea Terrace



East Wind Tower



Project Twin Star



Sun And Moon Apartments

## RESIDENTIAL (HIGH DENSITY/MEDIUM LAND VALUE)



Yingling Estates



The Beverly Lam



Six Fortune Apartments



Tai-Ru-Gto Apartments



Paradise Abode



New Asia Hi-Rise



Green Garden Towers





## RESIDENTIAL (HIGH DENSITY/HIGH LAND VALUE)



The Palms



Terraced Plaza



Peninsula Apartments



Fortune Cookie Corp.



Yoshi Towers



Shining Star Hi-Rise

## COMMERCIAL (LOW DENSITY/LOW LAND VALUE)



Hi Kitty Gas



Duck and Goose  
Gas Station



Imperial Ice Cream



99 Flea Market



Hisa Sushi



Lee & Li Accountancy



HK Self Storage



Jade Motel

B

APPENDIX B:  
BUILDING DIRECTORY

## COMMERCIAL (LOW DENSITY/HIGH LAND VALUE)



South Mountain Insurance



Sumi's Boutique



Choi's Department Store



21 Fashion



Toy Store



Royal Orchid Athletic Club



Monsoon Savings Bank



Kwang-Hwa Computer Shops

## COMMERCIAL (MEDIUM DENSITY/LOW LAND VALUE)



Spring Garden Grocer



Sun & Moon Mall



Phoenix Building



Thousand Cranes Multiplex



Royal Retail



Fuko Market



Keanu's Hawaiian Imports



## COMMERCIAL (MEDIUM DENSITY/HIGH LAND VALUE)



Li, Liu, Lew & Associates



Bonzai Building



I-Den Theater



Kim Plaza



Thousand Year Building



Miyazaki Foundation



Neihu Plaza

## COMMERCIAL (HIGH DENSITY/LOW LAND VALUE)



Toshi's Terrace



Tea Exchange



Yangtze Tower



Chungking Distressed



Import Export Inc.



Miyagi Garage



Wen-Wen Insurance Plaza



Great Wall Commercial Center

## COMMERCIAL (HIGH DENSITY/HIGH LAND VALUE)



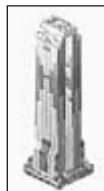
Four Tier Central



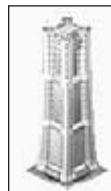
Bluerise Plaza



R' For Roof Executive Suite



Huge Enterprise



Pan Pacific Insurance



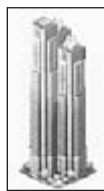
Tameki Tower



Jadyn's Tower



Kochavatr Foundation



Futo-Ishii Plaza

## INDUSTRIAL (AGRICULTURE)



Longevity Silo



Rice, Rice Paddy



Farm House with Rice Paddy



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